

# **A PHASE II ARCHAEOLOGICAL ASSESSMENT OF TM 5511**

**BORREGO SPRINGS,  
SAN DIEGO COUNTY, CALIFORNIA**

**APN 141-080-05; Vesting TM 5111, RPL1;  
STP07-019; Log No. 06-05-003**

*Prepared for:*

**KRS Development DBPP  
8 Kiopa'a Street, Suite 201  
Pukalani, Hawaii 96768**

*Submitted to:*

**County of San Diego  
Department of Planning and Land Use  
5201 Ruffin Road, Suite B  
San Diego, California 92123**

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*February 26, 2007, Revised July 11, 2007, Revised January 2, 2008*

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***Report Title:*** A Phase II Archaeological Assessment of TM 5511, Borrego Springs, San Diego County, California

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***USGS Quadrangle:*** *Borrego Palm Canyon* (7.5 minute), California

***Study Area:*** 50 acres

***Key Words:*** Archaeological assessment of 50 acres; APN 141-080-05; ten sites; CA-SDI-18,266; SDI-18,267; SDI-18,268; SDI-18,269; SDI-18,270; SDI-18,271; P-37-028079; SDI-18,272; SDI-18,273; and SDI-18,274; not significant; subsurface testing; USGS *Borrego Palm Canyon* quadrangle (7.5 minute); no significant impacts; monitoring recommended.

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*\*Confidential Appendix; bound separately*



## **List of Abbreviations**

AMSL	above mean sea level
APN(s)	Assessor's Parcel Number(s)
BFSA	Brian F. Smith and Associates
CEQA	California Environmental Quality Act
DPR	Department of Parks and Recreation
GPS	Global Positioning System
LPW	lithic production waste
NAHC	Native American Heritage Commission
OHP	(State) Office for Historic Preservation
SBW	Salton Brown Ware
SCIC	South Coastal Information Center
SDAC	San Diego Archaeological Center
SDSU	San Diego State University
SHPO	State Historic Preservation Office(r)
STP	Shovel test pit
TM	Tract Map
TU	Test unit
USGS	United States Geological Survey
YBP	years before present

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## **1.0 MANAGEMENT SUMMARY/ABSTRACT**

In response to a request from KSD Hawaii, Brian F. Smith and Associates (BFSA) conducted a Phase II archaeological assessment of cultural resources identified within TM 5511 located in the community of Borrego Springs in northern San Diego County, California. The assessment was conducted as part of the environmental clearance required for the development of a 50-acre parcel, Assessor's Parcel Number (APN) 141-080-05. The assessment involved a significance evaluation for ten cultural resources observed within the subject property during a previous surface inspection by Professional Archaeological Services (PAS; Dr. Philip de Barros, Ph.D., Principal Investigator) (Appendix I). The current evaluation was conducted in accordance with CEQA and the County of San Diego guidelines to determine the level of significance of any archaeological or historical cultural resources that would be affected by the proposed project.

Records searches were conducted for PAS on October 13, 2006 by the South Coastal Information Center (SCIC) at San Diego State University (SDSU) to identify previously recorded archaeological sites in the project. The records search was negative for the presence of known cultural resources within project boundaries (Appendix II).

A survey of the project was conducted by PAS on October 22, 2006, and resulted in the identification of ten previously unrecorded cultural resources. These sites were recorded by de Barros on DPR 523 forms and trinomials were assigned to the sites by the SCIC (CA-SDI-18,266; SDI-18,267; SDI-18,268; SDI-18,269; SDI-18,270; SDI-18,271; P-37-028079; SDI-18,272; SDI-18,273; and SDI-18,274). As a result of these discoveries, CEQA and San Diego County guidelines required a significance evaluation of all potentially significant cultural resources encountered during the Phase I surface inspection of the proposed project. BFSA archaeologists conducted the Phase II significance evaluation for these ten resources from February 1 to 5, 2007 and again on June 20, 2007. The evaluation was conducted under the direction of Brian F. Smith, Principal Investigator, and with the assistance of a Native American representative. A supplementary field visit was conducted December 11, 2007 and archival research was conducted December 11 and 12, 2007 in order to ensure that Sites SDI-18,269, 18,267, 18,274, 18,270, and P-37-028079 are not significant.

All cultural resources were tested to recover sufficient information to facilitate the determination of significance in accordance with CEQA and San Diego County guidelines. Testing included mapping of resources by GPS, surface collections, and subsurface excavations where appropriate.

By completing a Phase II significance evaluation of the ten cultural resources identified within TM 5511, all of the resources have been determined to have limited significance but are not significant under RPO guidelines. These findings are based generally on a lack of research potential and the absence of intact subsurface deposits. While the resources can be considered to have limited significance, as defined by the recently adopted County of San Diego guidelines,



potential impacts can be fully mitigated by curating all of the recovered artifacts (or a sample of the historic artifacts collected, as allowed by the County) and updating site forms to reflect the testing program. The County should require the inclusion of a mitigation monitoring program in the Conditions of Approval for TM 5511. Monitoring of grading is recommended because of the presence of resources within the property and the likelihood that buried resources may be uncovered. Any resources that are identified during ground disturbing activities should be assessed for significance and treated in accordance with CEQA and the County of San Diego guidelines.

A copy of this report will be permanently filed with the SCIC at SDSU, San Diego, California. All notes and other materials related to this project will be curated at the archaeological laboratory of BFSa in Poway, California. All artifact collections will be temporarily housed at BFSa until permanent curation can be arranged at the San Diego Archaeological Center (SDAC).

## **2.0 INTRODUCTION**

The project is located on the west side of Hoberg Road and on the north side of Palm Canyon Drive, in Borrego Springs, San Diego County (APN 141-080-05) (Figure 2.0-1). Specifically, the project is located on the USGS *Borrego Palm Canyon* Quadrangle maps (7.5 minute), in the southwest quarter of the northwest quarter of Section 31, and the southwest quarter and northwest quarter of the southwest quarter of Section 31, Township 10 South, Range 6 East, of the San Bernardino Baseline and Meridian (Figure 2.0-2). The proposed project for the 50-acre parcel involves the development of the property for 17 residential lots and one 11.6-acre commercial lot along Palm Canyon Drive (Figure 2.0-3). The survey was previously completed by Dr. Philip de Barros of Professional Archaeological Services (PAS) in October of 2006. BFSa was contracted by the applicant to conduct a testing program, as required by the County of San Diego for the review of TM 5511. The significance evaluation of cultural resources at TM 5511 took place from February 1 to 5, 2007 and again on June 20, 2007. The testing program was conducted by Richard Greene under the direction of Brian F. Smith, with assistance from Shaun Murphy, Justin Houghton, Charles Callahan, Michelle Courtney, and Damien Tietjen. A Native American representative was present during the testing of prehistoric resources (SDI-18,266, and SDI-18,268). A supplementary field visit was conducted December 11, 2007 and archival research was conducted on December 11 and 12, 2007 by Senior Archaeologist and Historian Larry J. Pierson and Historian Melanie D. Lytle in order to ensure that Sites SDI-18,269, 18,267, 18,274, 18,270, and P-37-028079 are not significant.

### **2.1 Summary of Survey Results by Professional Archaeological Services**

A records search was conducted by the SCIC for Dr. de Barros of PAS on October 13, 2006, which indicated that prehistoric bedrock milling features, rock shelters, rock cairns, and rectangular rock house floors, as well as historic structures and debris are located within one mile of the current project. No resources were previously recorded on the property. The field survey of the project was conducted by PAS on October 22, 2006. Ten cultural resources were identified and recorded on Department of Parks and Recreation (DPR) 523 forms, which were submitted to the SCIC at SDSU for trinomial assignment. Two resources were recorded as prehistoric sites (SDI-18,266 and SDI-18,268), one was recorded as an isolate (P-37-028079), and the remaining seven were recorded as historic artifact scatters or collapsed structures. The recorded sites identified by PAS are listed in Table 2.0-1.



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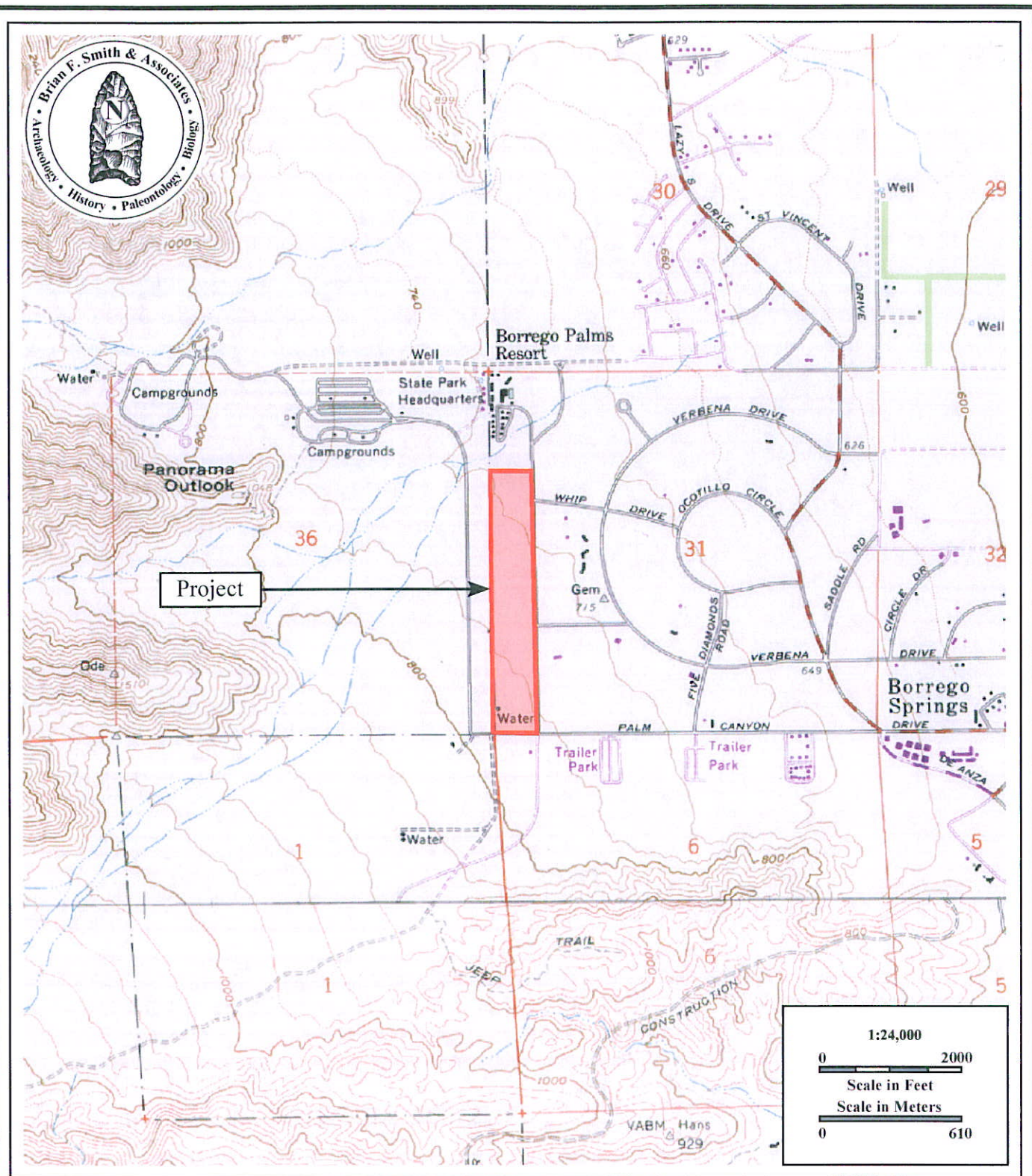
**Table 2.0-1**  
**Cultural Resources Recorded at TM 5511**

Site as Recorded by PAS (2007)	Trinomial
JM-1	SDI-18,266
JM-2	SDI-18,267
JM-4	SDI-18,268
JM-5	SDI-18,269
JM-6	SDI-18,270
JM-7	SDI-18,271
JM-8	P-37-028079
JM-9	SDI-18,272
JM-11	SDI-18,273
JM-13	SDI-18,274



**Figure 2.0-1**  
**General Location Map**  
 TM 5511, Borrego Springs





**Figure 2.0-2**  
**Project Location Map**  
 TM 5511, Borrego Springs  
 USGS Borrego Palm Canyon Quadrangle (7.5 minute series)



[illegible]

1. What is the purpose of the experiment?  
To determine the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide.

2. What is the chemical equation for the reaction?  
$$2\text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{O}_2$$

3. What are the reactants and products?  
Reactants: Hydrogen peroxide ( $\text{H}_2\text{O}_2$ ) and Potassium iodide ( $\text{KI}$ )  
Products: Water ( $\text{H}_2\text{O}$ ) and Oxygen gas ( $\text{O}_2$ )

4. What is the independent variable?  
Temperature (°C)

5. What is the dependent variable?  
Rate of reaction (measured by volume of oxygen gas produced over time)

6. What are the controlled variables?  
Concentration of hydrogen peroxide, Concentration of potassium iodide, Volume of reactants, Catalyst (Manganese(IV) oxide), Pressure, Surface area of catalyst.

7. What is the hypothesis?  
The rate of reaction will increase as the temperature increases.

8. What is the procedure?  
1. Prepare a series of test tubes containing different volumes of hydrogen peroxide and potassium iodide solutions at different temperatures.  
2. Add a fixed amount of manganese(IV) oxide catalyst to each test tube.  
3. Measure the volume of oxygen gas produced over a fixed time interval (e.g., 30 seconds).  
4. Repeat the experiment for each temperature.

9. What are the results?  
The rate of reaction increases with temperature. For example, at 20°C, the rate is 10 cm³/min, and at 40°C, the rate is 20 cm³/min.

10. What is the conclusion?  
The rate of reaction between hydrogen peroxide and potassium iodide is directly proportional to the temperature.

[illegible]

**PENCIL MARK**

F. E. BARR, JR., CLERK OF SUPERIOR COURT  
CLERK, TALLAHASSEE, FLORIDA

THE MATTER OF: COUNTY OF WALKER, ALA.  
VS. THE STATE OF ALABAMA: THE PLAINTIFFS VS. THE DEFENDANT.

ASSESSOR'S PARCEL NUMBER & TAX RATE AREA		TAX RATE AREA
ADDRESS:	PARCEL NUMBER	
		UT-300-25 18025

BY: ORIGINAL FILED 23

[illegible]

	1983-84	1984-85	1985-86
1. Total Expenditure	103.1	142	161.88
2. Total Income	2.8	14.2	1.28
3. Net Expenditure	100.3	127.8	160.6
4. Total Expenditure	103.1	142	161.88
5. Total Income	2.8	14.2	1.28
6. Net Expenditure	100.3	127.8	160.6

**GRADING NOTE**  
SEE INSTRUCTOR MANUAL FOR GRADING INFORMATION

VICINITY MAP  
NO SCALE

Figure 1: Schematic diagram of the experimental setup. A subject is shown sitting at a table, viewing a video screen. The screen displays a target (a small circle) and a starting point (a small square). The distance between the starting point and the target is labeled as 10 cm. The subject's hand is positioned at the starting point, and the video screen is positioned at a distance of 10 cm from the starting point. The subject is instructed to move their hand from the starting point to the target.

2.0–5



### **3.0 SETTING**

#### **3.1 Environmental Setting**

The current project lies within Borrego Valley, north of the Vallecito Mountains, and is bordered to the east by the Anza-Borrego Desert State Park. The elevation of the property ranges from approximately 720 to 790 feet above mean sea level. The entire project is characterized by level to moderately sloping terrain, with a large, dry wash running just north of the project area from southwest to northeast, and numerous small, shallow drainages throughout the remainder of the property. The soil appeared to be a medium to light tan (10YR 6/3, fine to coarse grain), sandy alluvium. Vegetation consisted of mixed native and non-native grasses, various cacti, and desert bushes such as sagebrush, ocotillo, and creosote. Vegetation was sparse and as a result, ground visibility was good. The property did not appear to have been previously developed; however, the presence of structural remains, a pipeline, water tank, and well head suggest that the property may have been irrigated for grazing or agriculture sometime in the distant past. The property was used as an airstrip sometime during the mid twentieth century and has also been impacted by years of dumping trash, some of which may be related to the airstrip or to a former motel/resort that was located just north of the property. Photographs were taken to document project conditions at the time of the current study (see Plates 3.0–1 and 3.0–2).

#### **3.2 Cultural Setting**

Archaeological investigations in southern California have documented a diverse and rich record of human occupation spanning the past 10,000 years. In San Diego County, most researchers organize prehistory into the PaleoIndian, Archaic, and Late Prehistoric Periods and history into the Mission, Rancho, and American Settlement Periods. The San Dieguito Complex, Millingstone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex are archaeological manifestations that have been used to describe the Archaic and Late Prehistoric periods in the region.

The PaleoIndian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basinlands (Morrato 1984). At approximately 10,000 YBP, a cool/moist climate was present in San Diego County. This is supported by pine pollen found in deposits at Point Loma and Encinitas and oak pollen identified in deposits from Otay Mesa (Gallegos and Kyle 1988; Kaldenberg 1982; Kyle et al. 1989). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The San Diego shoreline at



10,000 YBP, depending on the particular area of the coast, was near the 30-meter isobath or two to six kilometers further west than its present location (Masters 1983).

The end of the PaleoIndian Period marks the beginning of the San Dieguito Complex in San Diego County. The San Dieguito Complex has long been viewed as a group of people who occupied the San Diego County region between 10,000 and 8,000 YBP. It has been suggested that they were related to or were contemporaneous with the Paleo-Indian groups in the Great Basin area. The artifacts recovered from San Dieguito sites duplicate the typology attributed to the Western Pluvial Lakes Tradition (Moratto 1984; Davis et al. 1969). These artifacts generally consist of scrapers and scraper planes, choppers, and bifacially flaked knives, but few or no milling tools. The absence of grinding or milling stones suggests to researchers that cereal grains and nuts were not an important part of the subsistence pattern. Tools recovered from sites of the San Dieguito Complex and the general pattern of site locations has led to the interpretation that they were a wandering, hunting and gathering society (Moriarty 1969; Rogers 1966).

The Archaic Period begins with the onset of the Holocene around 9,000 YBP. The transition from the Pleistocene to the Holocene was a period of major environmental change throughout North America (Antevs 1953; Van Devender and Spaulding 1979). In southern California, the general climate at the beginning of the early Holocene is marked by cool/moist periods and an increase in warm/dry periods and rising sea levels. The warming trend and rising sea levels generally continued until the late Holocene. Archaeological research indicates that southern California was occupied between 9,000 YBP and 1,300 YBP by population(s) that utilized a wide range of both marine and terrestrial resources. A number of different archaeological manifestations, based on geographical setting, tool kit, and/or chronology, are recognized during the Archaic Period including the San Dieguito, La Jolla, Encinitas, Millingstone, and Pauma complexes. Archaic sites generally contain milling tools, especially manos and metates, cobble and flake tools, dart projectile points and the concomitant use of the atlatl, crescents, shell, fish bone, and animal bone representing large and small game. Additionally, Archaic groups buried their dead as flex inhumations, a religious and cultural practice that is distinct from the succeeding Late Prehistoric groups.

The Late Prehistoric period begins approximately 1,300 YBP. Cremation, ceramics, bow and arrow, small triangular points, the use of Obsidian Butte obsidian, and the reliance upon the acorn as a main food staple are the defining characteristics of the Late Prehistoric period (Chartkoff and Chartkoff 1984; Gallegos 2002; Moratto 1984). These characteristics are thought to represent the movement of Shoshonean and Yuman speaking groups into northern San Diego, Orange, Riverside, and Los Angeles Counties. Economic systems diversified and intensified during this period with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, but effective, milling technologies closer to the coast, such as the bedrock mortar for use in acorn processing.



The last major migration into central and eastern San Diego County occurred approximately 1,500 to 1,200 YBP, when a Yuman-speaking people moved from the Colorado River Basin to the coast in search of a more plentiful food supply (Moriarty 1969). This group is known locally as the Late Prehistoric Diegueño, or Kumeyaay, culture. The Kumeyaay were a complex hunting and gathering group that utilized a wide variety of marine and terrestrial resources. Cremation, pottery production and use, the bow and arrow, small points, the use of Obsidian Butte obsidian from Imperial Valley, and the reliance upon the acorn as a main food staple are the defining characteristics of the Late Prehistoric Kumeyaay (Gallegos 2002; Moratto 1984). The bow and arrow and buff and brown pottery appear to have spread west from the American Southwest across the Colorado Desert (Moratto 1984). The Kumeyaay adopted these technologies rather than being replaced by groups moving westward given that the language they speak is in the Yuman language family in the Hokan Stock. The Hokan Stock is considered the oldest language stock in California prehistory (Kroeber 1925; Moratto 1984; Shipley 1978). Firm evidence has not yet been recovered to indicate whether the people living during the Archaic Period are predecessors of the Kumeyaay or whether archaic people were culturally absorbed or pushed out. However, stratigraphic information recovered from Site SDI-4609 in Sorrento Valley suggests a hiatus of  $650 \pm 100$  years between the occupation of the coastal area by the La Jolla Complex ( $1,730 \pm 75$  YBP) and the Kumeyaay ( $1,085 \pm 65$  YBP) (Carrico and Taylor 1983; Smith and Moriarty 1983). This gap in the archaeological record may represent the decline and abandonment of the coast by archaic people followed by the arrival of the Kumeyaay. On the other hand, continuous occupation during the transition from the Archaic Period to the Late Prehistoric Kumeyaay Period has been suggested by evidence found at the Scripps Poway Parkway site (Raven-Jennings and Smith 1999) and the Rancho San Diego sites (Byrd and Serr 1993), which would generally support the linguistic information.

When contacted by the Spanish in the sixteenth century, the Kumeyaay occupied a territory bounded on the west by the Pacific Ocean, on the east by the Sand Hills, on the north by Agua Hedionda Lagoon, and on the south by Todos Santos Bay in what is now Baja California (Luomala 1978). The disruption of native customs and subsistence makes the estimates of protohistoric populations and political units difficult. However, the Kumeyaay population was estimated to be between 10,000 and 20,000 with as many as 85 villages (Carrico 1986; Luomala 1978; Shippek 1986). A series of closely related, Yuman-speaking bands crisscrossed this region, divided into a northern (Iipay, or 'lipay) and southern (Tipay) dialect. Various referred to in the literature as Tipai-Ipai (Luomala 1978), Diegueño (after the mission at San Diego; Kroeber 1925), or lumped together with other groups under the term "Mission Indians", in San Diego County these people refer to themselves as the *Kumeyaay*. More recently, however, the terms '*lipay*' and *Kumeyaay* have been used more specifically to refer to different Yuman speaking groups with geographical differences (Fulmer et al. 1979). The term '*lipay*' includes the Northern, Northwestern, Coastal, and Northern Mountain Diegueño groups, whereas the term



*Kumeyaay* includes the Southern, Eastern, Southern Mountain, and Southeastern Diegueño groups. The *Kumeyaay* also includes the *Bajeno* and the *Kamia* (Byrd and Serr 1993:10). The term *Kamia* is often applied to desert dwelling *Kumeyaay* groups (de Barros 2007).

By the time of the first European settlement in San Diego, at least 20 permanent or semi-permanent villages had been established near the Pueblo of San Diego. These living sites were located in both coastal and inland locations. For the most part, villages were located close to a supply of fresh water and plant foods. Villages that depended on springs for their water supply were usually located some distance away, so that the animals using them would not be driven off, and also to avoid the insects that frequented the surrounding marshy areas (Moriarty 1961). Major river valleys, such as the San Diego River Valley, were well populated because of their resources of plant foods and water. Villages were also located in inland valleys east of San Diego, such as Borrego Valley and Imperial Valley.

Sites associated with the *Kumeyaay* are typically focused in or near the foothills and mountains, but sites are also found within the open desert environments near seasonal drainages. Their subsistence pattern was based on the collection of seeds (especially acorns), berries, and bulbs, and the hunting of small game. Additionally, the *Kamia* and the *Kumeyaay* living near the desert depended on the mesquite bean as the major nutritional staple. Artifact collections from late prehistoric occupations include milling tools, ceramics, projectile points, beads, shaft straighteners, and hammerstones. Ethnographic information indicates that the culture of the *Kumeyaay* Indians consisted of a close clan system with definitive religious beliefs and complex trade associations with relatives living in the Colorado River Basin (Kroeber 1925).

The historic period begins July 16, 1769, when the first Spanish exploring party, commanded by Gaspar de Portolá (with Father Junípero Serra in charge of religious conversion of the native populations), arrived in San Diego to secure California for the Spanish crown (Palou 1926). The natural attraction of the harbor at San Diego and the establishment of a military presence in the area solidified the importance of San Diego to the Spanish colonization of the region and the growth of the civilian population. Missions were constructed from San Diego to as far north as San Francisco. The mission locations were based on a number of important territorial, military, and religious considerations. Grants of land to persons who made an application were made, but many tracts reverted to the government for lack of use. As an extension of territorial control by the Spanish empire, each mission was placed so as to command as much territory and as large a population as possible. While primary access to California during the Spanish Period was by sea, the route of El Camino Real served as the land route for transportation, commercial, and military activities. This route was considered to be the most direct path between the missions (Rolle 1969). As increasing numbers of Spanish and Mexican people, and later Americans during the Gold Rush, settled in the area, the Native populations diminished as they were displaced or decimated by disease (Carrico and Taylor 1983).



By 1821, Mexico had gained independence from Spain and the northern territories were subject to political repercussions. By 1834, all of the mission lands had been removed from the control of the Franciscan Order under the Acts of Secularization. Without proper maintenance, the missions quickly began to disintegrate, and after 1836, missionaries ceased to make regular visits inland to minister the needs of the native peoples (Engelhardt 1921). Large tracts of land continued to be granted to persons who applied for them or had gained favor with the Mexican government. Grants of land were also made to settle government debts.

California was invaded by United States troops during the Mexican-American War of 1846-1848. The acquisition of strategic Pacific ports and California land was one of the principal objectives of the war (Price 1967). At the time, the inhabitants of California were practically defenseless, and they quickly surrendered to the United States Navy in July 1847 (Bancroft 1886).

The cattle ranchers of the "counties" of southern California had prospered during the cattle boom of the early 1850s. Cattle raising soon declined, however, contributing to the expansion of agriculture. With the passage of the "No Fence Act," San Diego's economy changed from stock raising to farming (Rolle 1969). The act allowed for the expansion of unfenced farms, which was crucial in an area where fencing material was practically unavailable. Five years after its passage, most of the arable lands in San Diego County had been patented as either ranchos or homesteads, and growing grain crops replaced the raising of cattle in many of the county's inland valleys (Blick 1976; Elliott 1883 [1965]). By 1870, farmers had learned to dry farm and were coping with some of the peculiarities of San Diego County's climate (*San Diego Union*, February 6, 1868; Van Dyke 1886). Between 1869 and 1871, the amount of cultivated acreage in the county rose from less than 5,000 acres to more than 20,000 (*San Diego Union*, January 2, 1872). Large-scale farming in San Diego County was limited by a lack of water and the small size of arable valleys; also, the small urban population and poor roads restricted commercial crop growing. Nevertheless, cattle continued to be grazed in inland San Diego County (Gordinier 1966).

During the first two decades of the twentieth century, the population of San Diego County continued to grow. The population of the inland county declined during the 1890s, but between 1900 and 1910, it rose by about 70 percent. The pioneering efforts were over, the railroads had broken the relative isolation of southern California, and life in San Diego County became similar to other communities throughout the west. After World War I, the history of San Diego County was primarily determined by the growth of San Diego Bay. During this time period, the history of inland San Diego County was subsidiary to that of the City of San Diego, which became a Navy center and industrial city (Heiges 1976). In inland San Diego County, agriculture became specialized, and recreational areas were established in the mountain and desert areas.



Europeans first discovered Borrego Valley in 1772. Lieutenant Pedro Fages of the San Diego Presidio was one of the first Europeans to enter Borrego Valley while pursuing military deserters through the present town of Borrego Springs and up Coyote Canyon. He was soon followed by the first expedition led by Juan Bautista De Anza, who was seeking an overland route from Sonora Mexico to Monterrey California, and camped at the Kumeyaay village of “San Gregorio” (named by the Spanish) in March 1774. This village (and spring) located just east of the Borrego Sink was the location of the original Borrego Spring (McArron 2006).

During the mid 1800s, a few ranchers began utilizing Borrego Valley for winter grazing and homesteading; however, it was not until after 1910 that the first homesteaders began to settle in the Borrego Valley. Around 1920, the first successful well quickly led to irrigation farming. By the mid 1920s, the town of Borrego Springs had a post office, a small general store, and a gas station (Brigandi 1997).

Paved roads and electricity were brought to Borrego Springs during World War II. After the war, developers began subdividing and developing the Borrego Valley area for resort living, capitalizing on the tourism generated by Anza Borrego State Park, a building trend that continues to this day (McArron 2006).

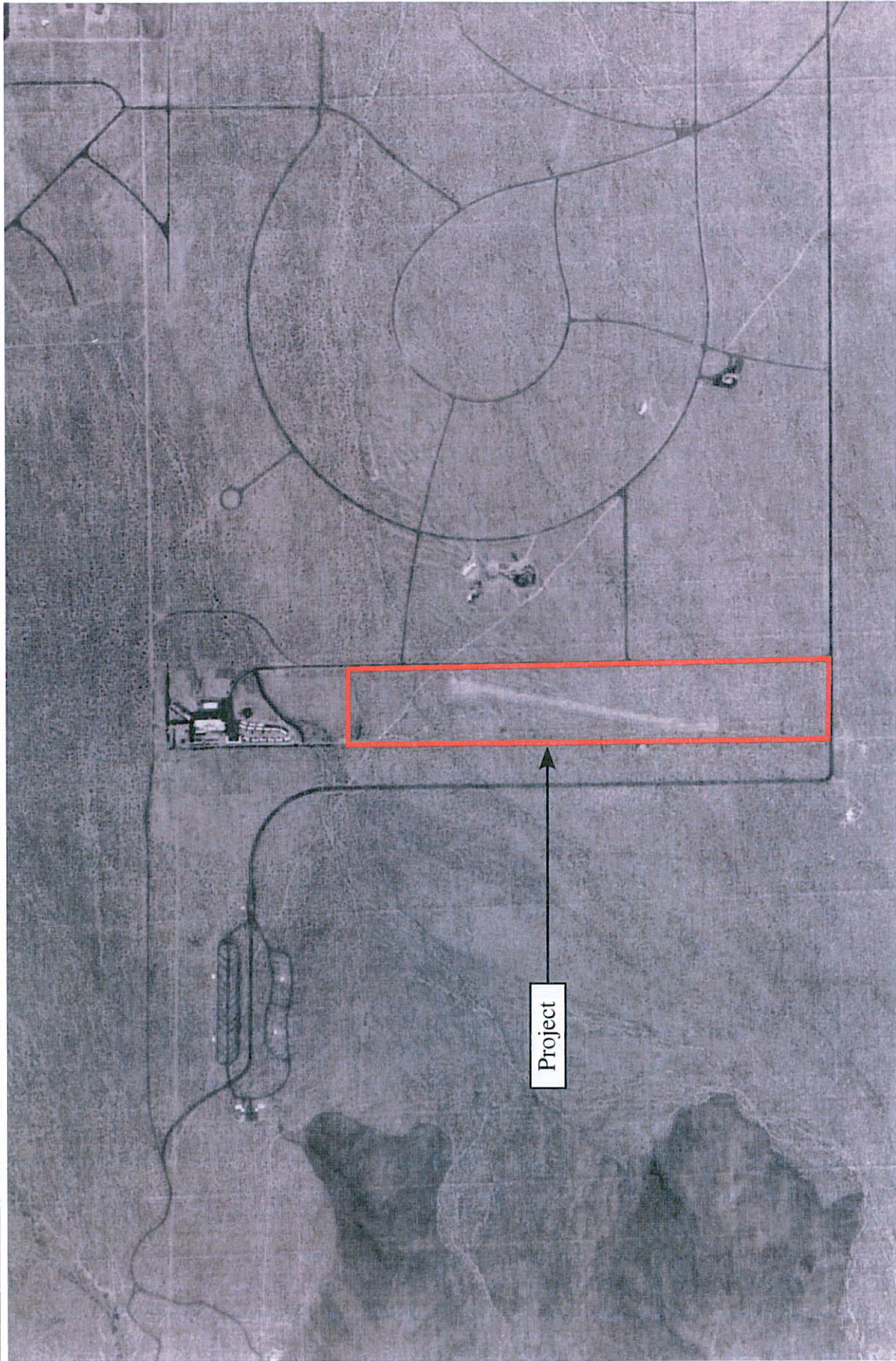
The project property was held by the Federal government until October 21, 1921 when it was granted to the Southern Pacific Railroad (Bureau of Land Management 1921). Little could be determined regarding land ownership for the period between the Railroad ownership and the present owner. Southern California Fruit Lands Corporation owned the land in at least 1932 (State Park Commission 1932).

No buildings are shown within the property boundaries on the 1941 *Clark Lake, CA* (15-minute) quadrangle, 1959 *Borrego Palm Canyon, CA* (7.5-minute) quadrangle (based on photographs from 1954), or 1974 (photorevised) *Borrego Palm Canyon, CA* (7.5-minute) quadrangle of the USGS topographical maps for the project, although the 1959 and 1974 maps note that there is “Water” (tank or well) in the southwest corner of the property. A building is illustrated just outside the central western boundary and a resort complex is shown to the immediate north on both the 1959 and 1974 maps. Two aerial photographs, one taken in 1953 (San Diego County 1953) and the other in 1961 (San Diego Historical Society 1961) show a diagonal, northeast facing landing strip on the property (Plates 3.0–1 and –2). The building just outside the central western boundary and the resort complex shown on the topographical maps are also visible. The 1953 aerial shows several small structures on the western side of the property and a small stand of trees and small building occupying the far northwestern corner. The County of San Diego Assessor’s office did not have any record of buildings on the property.

A 1955 San Diego Sectional Aeronautical Chart (San Diego Historical Society Map Collection) and a 1966 Geologic Map (California Division of Mines and Geology, Department of Conservation 1966) include the air strip. The Aeronautical Chart recorded the airstrip as 2000 feet long and without fuel, repair facilities, or lighting. A San Diego Union article dated Feb. 12,



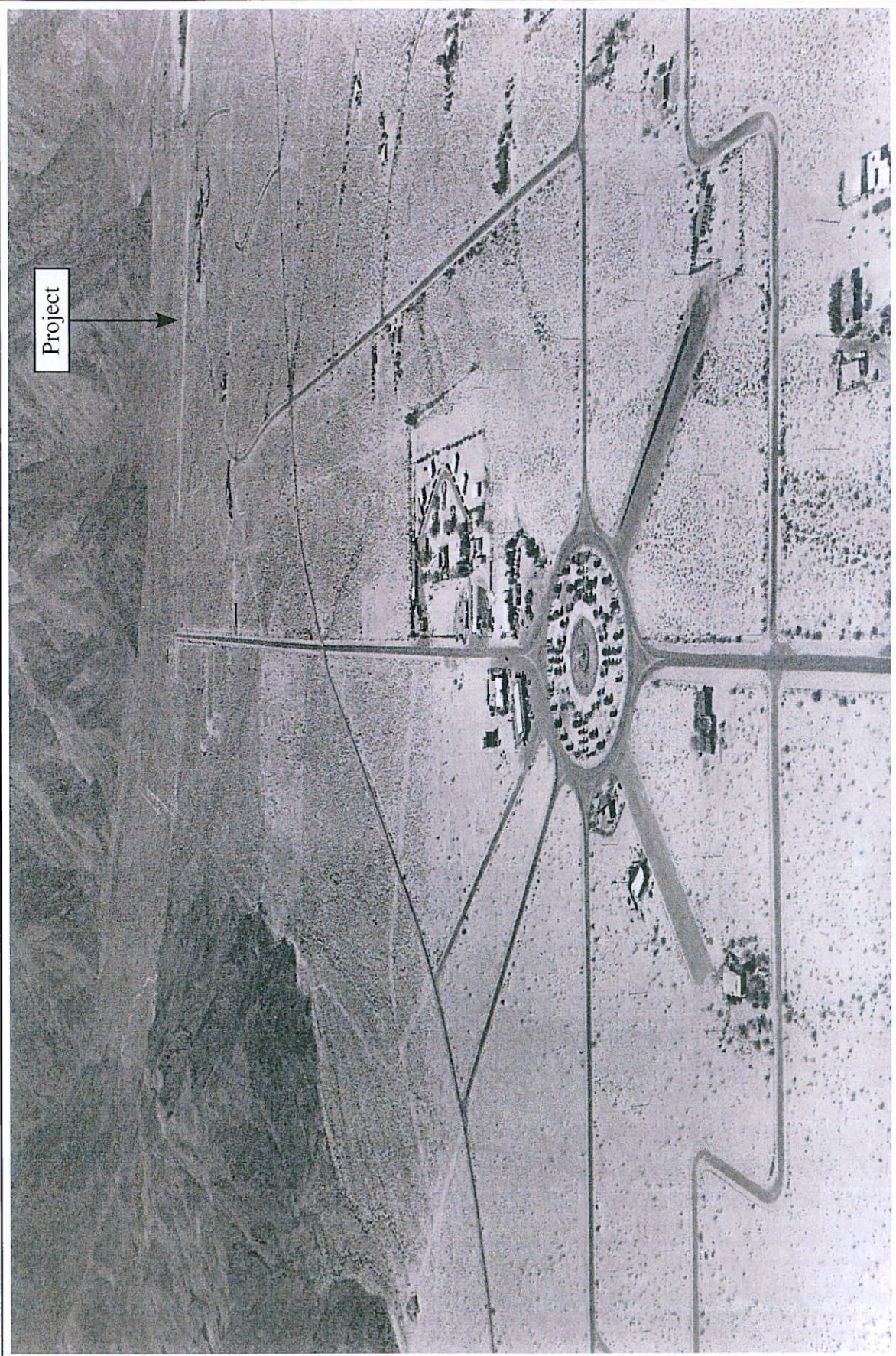
1956 wrote of the “unpaved strip near the Borrego Palms Resort...adjacent to the Palm Canyon Road...” (Stone N.d). According to the article, the strip could accommodate approximately 15 aircraft and additional temporary equipment. The airstrip operated from at least 1953 to 1966. The remains of the strip can still be seen in recent aerial photographs (Google Earth 2007).



**Plate 3.0-1**  
**Aerial Photograph, Dated 5-21-1953**  
TM 5511, Borrego Springs

AXN-17M-21, Courtesy of San Diego Cartographic Services Department





**Plate 3.0-2**  
**Aerial Photograph, Dated 3-22-1961**  
TM 5511, Borrego Springs  
UT 84, Courtesy of San Diego Historical Society





**Plate 3.0-3 Overview of the project area, facing west.**



**Plate 3.0-4 Overview of the project area, facing south.**



## **4.0 METHODOLOGY**

The archaeological testing program implemented for the cultural resources identified within TM 5511 included mapping of resources by GPS and surface collections where appropriate, as well as a series of shovel tests and excavation of one test unit where appropriate. This archaeological study conformed to the requirements set forth in CEQA and San Diego County guidelines. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO March, 1995). Site update forms will be filed with the SCIC at SDSU.

The testing program was conducted from February 1 to 5 and June 20, 2007 by BFSA. All recovered cultural and ecofactual materials were returned to the BFSA laboratory for cataloging and analysis. The results of the archaeological assessment are discussed in detail in Section 5.0.

### **4.1 Field Methodology**

Testing included re-recording each resource through photographs, sketches, mapping by GPS, a surface collection of prehistoric artifacts at SDI-18,266, SDI-18,268, and SDI-18,269, and subsurface excavations at SDI-18,266, SDI-18,268, S DI-18,269, and SDI-18,272. SDI-18,266 was tested with 11 shovel test pits, SDI-18,268 with five shovel tests, SDI-18,269 with eight shovel tests, and SDI-18,272 was tested with eight shovel test pits and one test unit. The test unit (TU) and shovel test pits (STP) were excavated using hand tools, and vertical control was maintained by excavating in standard decimeter levels. The STP series consisted of excavations approximately 30 centimeters in diameter, which proceeded in decimeter levels to subsoil or a culturally sterile soil horizon. The test unit was excavated to a culturally sterile level. The placement of the test unit was based on the shovel test pit recovery. All excavated soils were sifted through one-eighth-inch hardwire mesh screens. All of the artifacts recovered from the excavations were bagged, labeled with provenience information, and returned to the laboratory for analysis. Level record sheets were completed after the excavation of each STP or TU level, describing the soil types encountered and the materials recovered. Where subsurface testing was not conducted, a trowel was used to check for evidence of subsurface deposits. If no subsurface deposit was identified, a random sampling of surface artifacts was analyzed in the field for diagnostic markings, which, if present was analyzed for manufacturing methods and/or dates. All surface collections, shovel test pits, and the test unit were mapped using a Trimble Geo XT Global Positioning System (GPS) unit equipped with TerraSync software. Photographs were taken to document field conditions during the testing phase.



## **4.2 Laboratory Methods**

Cultural material recovered from the testing programs at Sites SDI-18,266, SDI-18,268, SDI-18,269, and SDI-18,272 was returned to the laboratory of BFSA for cataloging, identification, analysis, repackaging, and curation in keeping with generally accepted archaeological procedures. All shovel test pit, test unit, and surface collection material recovered from the screening process was subjected to general sorting, analysis, and cataloging. The following sections describe analyses of artifacts and ecofacts recovered during the testing of these sites.

Various laboratory methods were used to study the artifacts recovered during the current study. The process used to identify, categorize, and catalog the recovered materials was based on a classification system commonly used in this region. However, the laboratory methods were different for historic material and prehistoric material, so they will be discussed separately.

### Historic Material (SDI-18,269 and SDI-18,272)

The general sorting technique applied to the recovered material consisted of separating the material by type, such as metal, glass, ceramics, etc., and weighing the bulk material types for each level. This resulted in a general description of the recovery from each test unit level, including contents, the dominant artifact type present, information about whether the material was burned, and the relative quantities of the major artifact types. The results of the general sort procedure were catalogued and added to the artifact database.

In addition to the general sorting of the artifacts, the test unit levels were examined for diagnostic artifacts that might contribute to the evaluation of the resource. Artifacts that were selected for analysis included bottles with embossing or any other characteristic that might facilitate dating or identification, ceramics with patterns or hallmarks, all jewelry, children's toys, samples of nails, tin can tops, buttons and clasps, or any other artifact that might in any way further the research effort of the investigation. The nondescript items such as glass, metal, and ceramics that did not contribute significantly to the research effort were discarded, as were shell and bone (although the quantity and weight of this material was recorded during the general sort procedure). All artifacts sorted out for diagnostic analysis were identified, catalogued, and added to the artifact database (Appendix III).

### Artifact Categories

Artifacts were prepared for cataloging according to standard laboratory practices. Items that were covered in dirt to the point of obscuring relevant characteristics were dry brushed or wiped with a damp cloth in order to enhance the artifact description. Each catalog entry was bagged in a two-millimeter thick, archival quality bag labeled with location and catalog number information. Information recorded about cataloged artifacts included provenience and depth, material, quantity and/or weight, functional category, artifact type, and a brief description of the



artifact(s) that included any diagnostic information about manufacturing methods, brand or product marks, and manufacturers' marks. Artifacts that shared the same provenience, material, and color characteristics but that were fragmentary were assigned a single catalog number. Artifacts have been classified by functional category for purpose of analysis. These functional categories include: Domestic Expendable, Domestic General, and Domestic Non-expendable. A description of these categories is provided below.

### **Domestic Expendable**

This category includes all generally shared household goods and their containers that would have to be replaced on a fairly regular basis, mostly consisting of grocery-type food items. Artifact classes and types considered part of this category include canned goods such as food/cooking, beverage, and miscellaneous including paint, cleaner, and oil cans; glassed goods such as food/cooking, beverage (non-alcoholic), liquor/spirits, condiment, medicine, and miscellaneous including laundry and ink bottles; and the various caps, lids, closures, and access parts that would accompany such containers.

### **Domestic Non-Expendable**

This category includes all items that are used by the household as a whole such as for food service and preparation, but which are not exhaustible like grocery items. Artifact classes and types that are placed in this category include ceramic tableware, hotelware, and crockery/food storage, glassware, tableware and bakeware, canning jars and equipment, flatware, metal cookware and tableware, and kitchen appliance parts and tools.

### **Domestic General**

The domestic general category includes items that are mainly related to the structure itself and its furnishings and the non-food related activities of the inhabitants. Artifact classes and types considered part of this category include electrical systems and fixtures, plumbing systems and fixtures, furnishings such as furniture, lamps, washing fixtures, and telephone items, decorative items, pet supplies and equipment, and miscellaneous items such as stationary supplies, sewing supplies, and storage shelves and hooks.

### **Prehistoric Material (SDI-18266, SDI-18268, and SDI-18269)**

All material recovered from the surface collection and screening process was subjected to general sorting and cataloging. General sorting of the cultural material identifies, classifies, and counts the individual artifacts from the surface collection locations and for each ten-centimeter level of each shovel test pit (if the STP was positive), as well as types, weights, and measurements of individual artifacts, when applicable.

The definitions for some of the artifact types were taken from the Office of Historic Preservation, *California Archaeological Resource Identification and Data Acquisition Program: Sparse Lithic Scatters* (1988). In addition to this source, a modified artifact typology system based on Smith and Moriarty (1985a) was employed. The artifact category applied to the results of testing SDI-18266, SDI-18268, and SDI-18269 is Salton Brown Ware pottery. A description of this type of pottery is provided below.

### **Salton Brown Ware**

Salton Brown Ware (SBW) is a well-documented ceramic type found in southern California. SBW has been found in Riverside, San Bernardino, and eastern San Diego Counties. This pottery type, which can be found from the west side of the Laguna Mountains going eastward down to the desert floor, is made from clays formed by the slow decay of the eastern side of the mountains. The defining characteristics of SBW include thick walls (averaging five to six millimeters), noticeable temper, and gray to a distinct dark brown coloring, resulting from uneven firing conditions.

In San Diego, Imperial, and Riverside Counties, pottery differs little between the different cultures. The *Cahuilla*, from the Coachella Valley and Santa Rosa Mountains, the *Quechan* (Kwî't'san) along the Colorado River, and the *Kamia* from the Anza Borrego and southern Salton Trough, produced similar types of pottery. The *Luiseño*, from western Riverside County and Northern San Diego County, made pottery identical to the *Kumeyaay* (Rogers 1936; Dobyns and Euler 1958). Vessel types include food jars, water jars, bowls, ladles, and winnowing trays. Some researchers (True et al. 1974) believe that pottery was introduced late into northern San Diego County and associate its use with the San Luis Rey II, or ethnographic Luiseño Period, of approximately AD 1750 to 1850. However, more recent evidence suggests an earlier date for the production and use of ceramics. Griset (1996) submitted the carbon residues on brown ware from a site on the San Luis Rey River (SDI-682) for radiocarbon analysis and found that the residues dated to AD 545 to AD 950. Other researchers have also suggested an earlier date for ceramics as well (Moriarty 1966; McCown 1955; Porcasi 1998; Berryman 1981).

### **4.3 Curation**

The project field notes, photographs, and reports will be curated at the offices of BFSa in Poway, California. All artifact collections will be temporarily housed at BFSa until permanent curation can be arranged at the San Diego Archaeological Center.

### **4.4 Native American Consultation**

The analysis of site components indicated no identifiable Native American religious, ritual, or other special activities at this location. Per county requirements and due to the prehistoric nature of some of the sites, a Native American monitor from Red Tail Research and



Monitoring, Inc., was present during the testing phase at those sites with a prehistoric component.

#### **4.5 Archival Research**

Archival research included a review of available historical maps, historical photographs, scrapbooks, manuscripts, and histories in the collections of the San Diego Historical Society, the Borrego Springs branch of the San Diego County Library, and the Begole Archaeological Research Center at Anza-Borrego State Park. Archival research was undertaken in order to determine the historical context of the historical features identified on the project.

## **5.0 REPORT OF FINDINGS**

An initial Phase I survey of the project was conducted by PAS on October 22, 2006, and resulted in the discovery of ten cultural resources (SDI-18,266 through SDI-18,274, and P-37-028079). As a result of these discoveries, CEQA and San Diego County guidelines required a significance evaluation of cultural resources identified during the survey of the proposed project.

The Phase II significance evaluation included a testing program that followed CEQA and San Diego County guidelines, and was conducted by BFSa. The testing program generally involved mapping by GPS, photographing the site area, and a surface collection of the prehistoric artifacts, as well as subsurface excavations to test for the presence and/or integrity of a subsurface cultural deposit. Soils across the entire project area appeared to be a consistent medium to light tan (10YR 6/3, fine to coarse grain), sandy alluvium, with the exception of SDI-18,272 where slight variations were noted within the deposit. All ten sites were relocated, tested, and evaluated according to San Diego County guidelines. Site records will be updated to reflect the results of the significance evaluation and testing program. The following sections provide all of the pertinent field and laboratory results for the archaeological assessment of cultural resources at TM 5511. Figures 5.0-1 and 5.0-2 illustrate the site locations within the project area. A supplementary field visit was conducted December 11, 2007 and archival research was undertaken December 11 and 12, 2007 by Larry Pierson and Melanie Lytle as requested by San Diego County.



**Figure 5.0-1**

**Cultural Resource Location Map (USGS)**

*(Confidential Map; deleted for Public Review)*

**Figure 5.0–2**

**Cultural Resource Locations shown on the Project Development Map**

*(Confidential Map; deleted for Public Review)*



## **5.1 Testing Results at SDI-18,266**

Site SDI-18,266 is a prehistoric ceramic scatter with numerous SBW pottery shards, including four rimsherds, measuring approximately 20 by 15 meters, as determined by the surface artifacts. Lithic artifacts observed by PAS include an obsidian secondary flake and a fragment of an obsidian Cottonwood arrow point. None of the lithics described by PAS were observed. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 780 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. Eleven shovel test pits (STPs) were excavated within the site boundaries; however, no subsurface artifacts or culturally modified soils were detected. See Figure 5.0–3 for an artifact location and excavation map of the site, and Plates 5.0–1 and 5.0–2 for an overview of the site area and an example of ceramics, respectively.

### *5.1.1 Surface Recovery*

The surface collection resulted in the recovery of 30 SBW sherds. The extent of the surface artifacts was used to determine the boundaries of the site since there was no subsurface component identified. Collection of the surface artifacts was necessary for the mitigation of the site to a level less than significant. All artifacts were mapped by GPS (Figure 5.0–3).

### *5.1.2 Subsurface Excavation*

The eleven shovel test pits were placed within and just beyond the surface scatter of artifacts. All shovel test pits were excavated to 40 centimeters except for STP 2, STP 3, STP 6, STP 9, and STP 10, which went to 30 centimeters. STP 7 was only excavated to 25 centimeters due to bedrock impasse. The diameter of each averaged about 30 centimeters. None of the shovel test pits were positive for prehistoric artifacts. The purpose of the excavations was to find the boundaries and overall depth of the site based on the presence or absence of subsurface artifacts and/or culturally modified soil. Since no artifacts were recovered and no culturally modified soil was observed, the results of the shovel test pits determined that there is no subsurface component to the site.

### *5.1.3 Laboratory Results*

A total of 30 artifacts were recovered from SDI-18,266. The artifact assemblage consisted entirely of SBW pottery (N=30; 26 potsherds, and four rimsherds). One of the rimsherds was decorated with one-millimeter deep notches every two millimeters along the top of the rim. It does not appear that all the potsherds were from the same vessel. A summary of artifact recovery is presented in Table 5.0–1. A brief description of Salton Brown Ware ceramics is presented in Section 4.3.

#### 5.1.4 Summary

The field investigation of SDI-18,266 documented a surface scatter of potsherds. No subsurface deposits were detected through the excavation of shovel test pits. The site is interpreted a sparse scatter of potsherds associated with the Late Prehistoric occupation of the area. Flaked lithic artifacts described by PAS in the survey report were not relocated.

**Table 5.0–1**  
**Artifact Summary, Site SDI-18,266**

Surface Collection	Quantity	Artifact Type	Material Type	Catalog #
1	1	Rimsherds	Salton Brown Ware	1
2	1	Rimsherds	Salton Brown Ware	2
3	3	Potsherds	Salton Brown Ware	3
4	1	Potsherds	Salton Brown Ware	4
5	1	Potsherds	Salton Brown Ware	5
6	1	Potsherds	Salton Brown Ware	6
7	3	Potsherds	Salton Brown Ware	7
8	2	Potsherds	Salton Brown Ware	8
9	3	Potsherds	Salton Brown Ware	9
10	3	Potsherds	Salton Brown Ware	10
11	1	Potsherds	Salton Brown Ware	11
12	1	Potsherds	Salton Brown Ware	12
13	4	Potsherds	Salton Brown Ware	13
14	1	Potsherds	Salton Brown Ware	14
15	1	Decorated Rim Sherd	Salton Brown Ware	15
16	1	Rimsherds	Salton Brown Ware	16
16	1	Potsherds	Salton Brown Ware	17
17	1	Potsherds	Salton Brown Ware	18



**Figure 5.0–3**

**Excavation Location Map, Site SDI-18,266**

*(Confidential Map; deleted for Public Review)*



**Plate 5.0-1 Overview of Site SDI-18,266, facing north.**

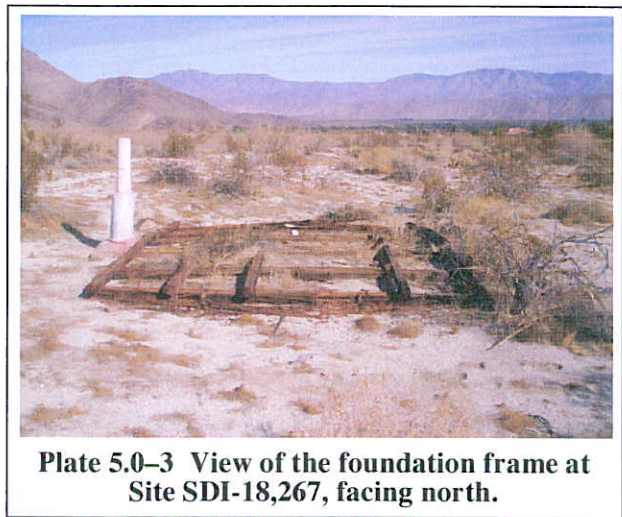


**Plate 5.0-2 View of SBW potsherds on the surface at Site SDI-18,266.**



## **5.2 Testing Results at SDI-18,267**

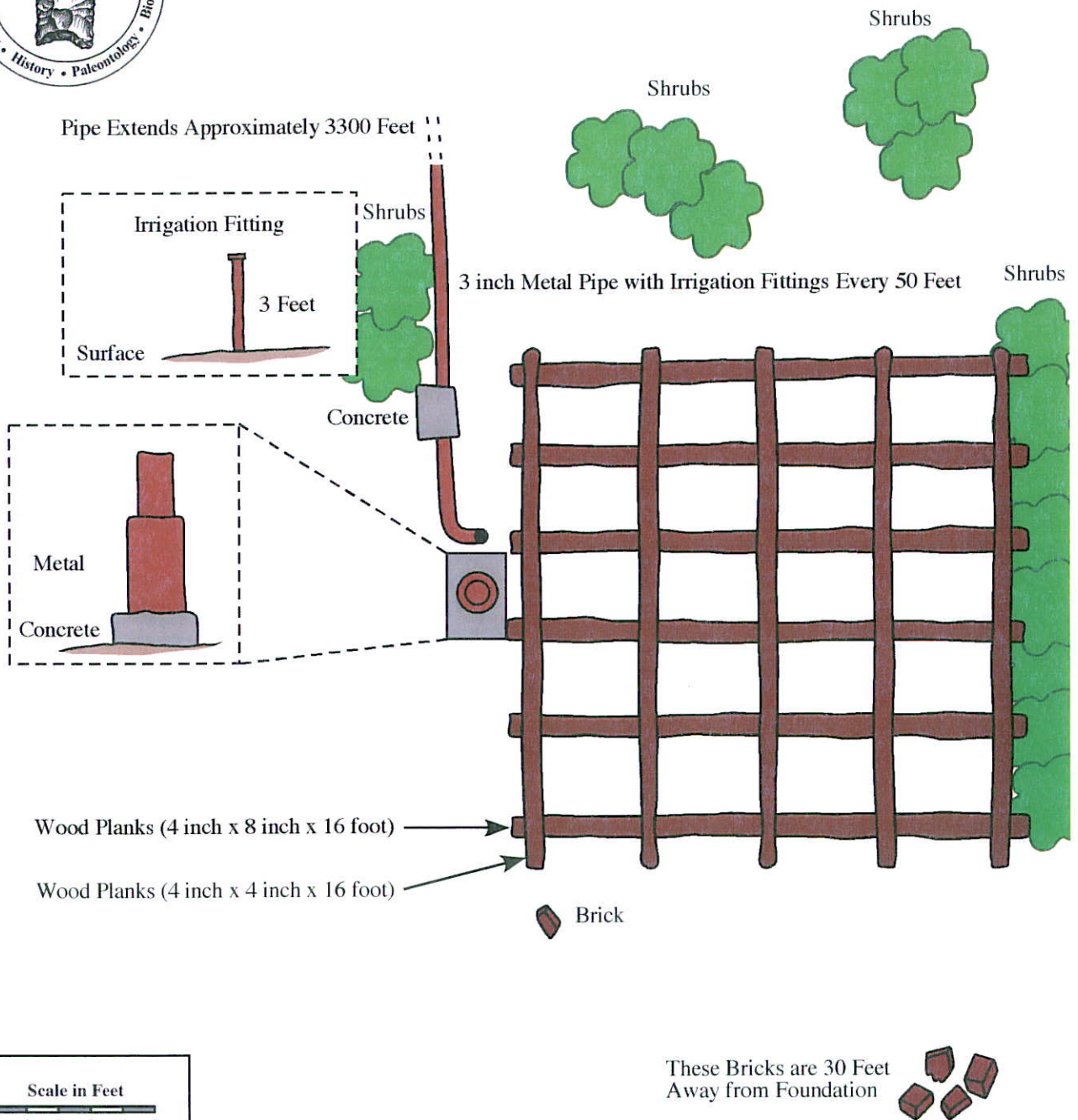
Site SDI-18,267 is a historic water tank foundation consisting of wood framing, a concrete and metal well head, and a three-inch metal pipe that extends north for a few hundred meters. The water tank feature consisted of a wood frame composed of six 4-x-8-inch, 16-foot long planks of milled timber lying parallel on the ground approximately three feet apart and oriented east to west. Five 4-x-4-inch planks of milled timber, also 16 feet long, lie on top of the first six boards parallel with each other and approximately three feet apart, and are oriented north to south (one is missing from the center of the frame). The boards appear to have formed a lattice-like frame to support the former tank. No evidence of the tank itself remains. The well head is centrally situated on the west side of the frame, and consists of a four-foot vertical metal pipe encased in concrete, with a rectangular concrete base measuring 18 by 17 by 4 inches. The pipe then extends north from the well head along the western boundary of the subject parcel for 1,000 meters just under the surface, until it stops just beyond the northern property boundary (near the remains of an abandoned motel). The pipe is a three-inch diameter metal pipe that has irrigation fittings extending two feet above the surface every ten to twenty meters.



**Plate 5.0–3 View of the foundation frame at Site SDI-18,267, facing north.**

The pipeline includes a valve and two irrigation fittings located within the SDI-18,269 site area. Two exposed portions of this pipeline located approximately 500 meters north of the tank site were recorded as P-37-028079 by PAS, (Appendix I and II). The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 780 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. The evaluation program consisted of the detailed recordation of a historic feature; however, no subsurface excavations were conducted due to the absence of any artifact concentrations.

Between five and ten metal cans and glass bottle fragments were in the immediate vicinity of the tank, but no deposits or dense concentrations of historic material were observed. The bottle glass and other historic/modern trash were inspected for diagnostic markings, but no samples were collected. The markings indicated that the material was from the latter half of the twentieth century, predominantly the 1960s and 70s. A trowel was used to explore the soil just below the surface, but no subsurface deposit was detected. The tank foundation remains were photographed, sketched, and mapped by GPS. See Plate 5.0–3 for a photograph and Figure 5.0–



**Figure 5.0-4**  
**Map and Plan View Sketch of**  
**Water Tank Foundation Frame**  
Site SDI-18,267  
TM 5511, Borrego Springs



4 for a plan view and map of the foundation frame based on the dimensions outlined by PAS (2007).

Both the 1959 (based on photographs taken in 1954) and 1974 (photorevised) USGS topographic maps for the project area note “Water” in the same area as SDI-18,267 (Figures 3.0–1 and –2). A small shadow appears on the 1953 aerial photograph that indicates the presence of the water tank or its foundation by at least that time. The irrigation system that extends from the water tank site illustrates that irrigation was once used on the property. The irrigation system may have been installed for agriculture, cattle grazing, or could have been associated with the airstrip present on the property from at least 1953 to 1966 (Section 3.0).

### **5.3 Testing Results at SDI-18,268**

Site SDI-18,268 is a prehistoric ceramic scatter of eight SBW potsherds that appear to relate to the same vessel, with a small amount of bottle glass in the vicinity, in an area measuring one by four meters. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 770 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. The bottle glass in the vicinity did not have distinct diagnostic markings, but appeared to be from modern soda bottles (for example, one clear glass bottle top had a twist-off cap, one fragment had a painted label for “Canada Dry Ginger Ale”), and no collection was made. The location of SDI-18,268 is shown in Figures 5.0–1 and 5.0–2.

#### *5.3.1 Surface Recovery*

The surface collection resulted in the collection of eight Salton Brown Ware potsherds and one quartz flake. The eight potsherds and one flake were recorded, mapped by GPS, collected from the surface, and are shown in Figure 5.0–5.

#### *5.3.2 Subsurface Excavation*

The subsurface investigation consisted of the excavation of five shovel test pits placed within, and just beyond the surface scatter of artifacts. All of the shovel test pits were excavated to a depth of 30 centimeters and measured approximately 30 centimeters in diameter. None of the shovel test pits were positive for prehistoric or historic artifacts. Since no artifacts were recovered and no culturally modified soil was observed, the results of the pits determined that there is no subsurface component to the site. Figure 5.0-5 shows the locations of the shovel test pits.

#### *5.3.3 Laboratory Results*

A total of nine artifacts were recovered from SDI-18,268. The artifact assemblage consisted primarily of SBW pottery (N=8; 7 potsherds; 1 rimsherd). It appears that the pottery

fragments may only represent one or two original vessels. The one flake recovered was derived from quartz, a common and locally available lithic source. The artifact assemblage is summarized in Table 5.0–2. A brief description of Salton Brown Ware ceramics is presented in Section 4.3.

#### 5.3.4 Summary

The field investigation of SDI-18,268 documented a surface scatter of potsherds and one quartz flake. No subsurface deposits were detected through the excavation of shovel test pits. The site is interpreted a sparse scatter of potsherds and one flake associated with the Late Prehistoric occupation of the area.

**Table 5.0–2**

**Artifact Summary, Site SDI-18,268**

Surface Collection	Quantity	Artifact Type	Material Type	Catalog #
1	1	Rimsherds	Salton Brown Ware	1
1	2	Potsherds	Salton Brown Ware	2
3	5	Potsherds	Salton Brown Ware	3
4	1	Flake	Quartz	4



**Figure 5.0–5**

**Site Map, SDI-18,268**

*(Confidential Map; deleted for Public Review)*

## **5.4 Testing Results at SDI-18,269**

Site SDI-18,269 is a large, sparse historic/modern artifact scatter with a prehistoric component consisting of five prehistoric SBW shards, including one rimsherd. The prehistoric artifacts were concentrated near the west edge of the site area. The site contains predominantly modern trash scattered over an area measuring 65 by 30 meters. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 765 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes.

### *5.4.1 Surface Recovery*

The surface collection resulted in the recovery of five SBW potsherds and two historic artifacts that were lying next to the prehistoric ceramics. These items were gathered from one collection location near the western boundary of the site, as illustrated in Figure 5.0–6. Collection of the prehistoric surface artifacts was necessary for the mitigation of the site to a level less than significant. All collected artifacts were mapped by GPS (Figure 5.0–6).

### *5.4.2 Subsurface Excavation*

The subsurface investigation consisted of the excavation of eight shovel test pits placed within, and just beyond the surface scatter of artifacts. All of the shovel test pits were excavated to a minimum depth of 30 centimeters and measured approximately 30 centimeters in diameter. Shovel test pit excavations were ceased either at the soil change interval at, or below 30 centimeters, or due to a bedrock impasse. Shovel test pits 2 and 7 were excavated to 40 centimeters and shovel test pit 3 was excavated to a depth of 35 centimeters. None of the shovel test pits were positive for prehistoric or historic artifacts. Since no artifacts were recovered and no culturally modified soil was observed, the results of the pits determined that there is no subsurface component to the site. The locations of all shovel test pits are shown in Figure 5.0-6.

### *5.4.3 Laboratory Results*

The surface collection resulted in the recovery of five prehistoric SBW shards. The historic/modern artifacts recovered consisted of one bottle glass fragment and one metal bottle cap/lid. It appears that all the potsherds were from the same vessel.

The historic artifacts fall under the category of Domestic Expendable items, which are defined in Section 4.3. A summary of artifact recovery is presented in Table 5.0–3. Plate 5.0–4 shows examples of the historic and prehistoric artifacts in situ.

### *5.4.4 Summary*

The field investigation of SDI-18,269 documented a sparse surface scatter of predominantly modern trash with a small cluster of prehistoric potsherds. No subsurface



deposits were detected. The trash appeared to consist of mostly rusty metal cans, very fragmented bottle glass, and a few construction related items such as a modern wiring harness, paint cans, red brick fragments, and pieces of foam insulation. The historic material scatter is very sparse, with approximately one to three artifacts for every ten square meters. The historic material consisted primarily of rusted metal cans, some of which were sanitary cans or had pull-tab tops, indicating that they were manufactured after 1962 (Rock 1989). Numerous soda bottle fragments were observed, but all appeared to be modern according to their diagnostic markings. The bottle stopper collected along with the prehistoric artifacts appeared to be the oldest historic artifact observed within the site boundaries. The presence of CO<sub>2</sub> cartridges and paint cans also indicate that the trash scatter is modern in age. The prehistoric artifacts, along with the sample of historic/modern artifacts located within close vicinity to the prehistoric artifacts, were collected and the site was interpreted as a sparse historic trash scatter with a prehistoric component.

SDI-18,269 was identified directly across the project boundary from the building shown on the 1959 and 1974 USGS topographical maps, and the 1953 and 1961 aerial photographs (Figures 3.0–1 and –2). It could be associated with the building across the project boundary and/or the airstrip that was present on the property from at least 1953 to at least 1966 (Section 3.0).

**Figure 5.0-6**

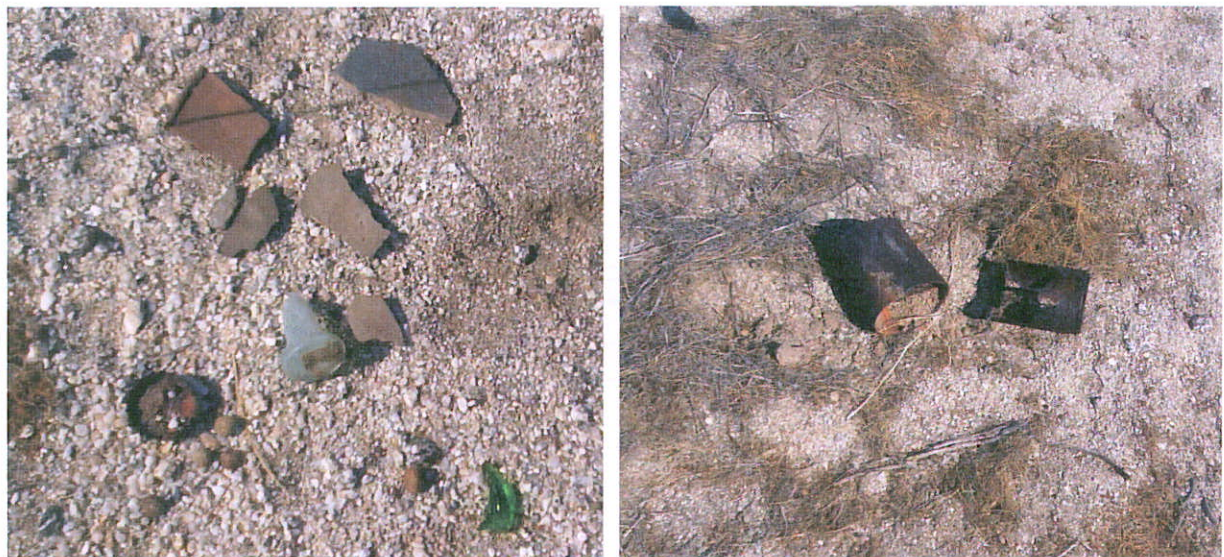
**Site Map, SDI-18,269**

*(Confidential Map; deleted for Public Review)*



**Table 5.0–3**  
**Artifact Summary, Site SDI-18,269**

Catalog #	Surface Collection	Material Class	Material Type	Artifact Class	Artifact Type	Quantity	Portion of Artifact
Prehistoric:							
1	1	Ceramic	Salton Brown Ware	Pottery	Rimsherd	1	fragment
2	1	Ceramic	Salton Brown Ware	Pottery	Potsherds	4	fragments
Historic:							
1	1	Glass	Colorless	Bottle	Beverage, non-alcoholic (milk)	1	fragment
2	1	Glass	Aqua	Cap/Lid	Stopper	1	whole



**Plate 5.0–4 (left) View of surface collection artifacts in situ at SDI-18,269.**  
**(right) View of other surface artifacts at SDI-18,269.**



### **5.5 Testing Results at SDI-18,270**

Site SDI-18,270 is a platform with a few historic artifacts scattered in the vicinity of the footing. The concrete linear platform forms a rectangle that is oriented east to west and open to the south. A concrete trough feature extends north from the northwest corner of the platform. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 760 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes.

The evaluation program consisted of the detailed recording of a historic feature; however, no subsurface excavations were conducted due to the absence of any artifact concentrations. The north wall of the platform measures 15 feet long, 4.7 inches wide (thick), and five inches tall; the west wall is 45 inches long, 4.7 inches wide, and about one to five inches tall; the east wall is 54 inches long, 4.7 inches wide, and five inches tall; and the south wall is absent.



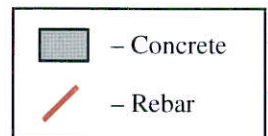
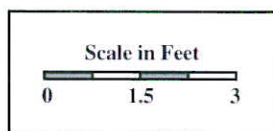
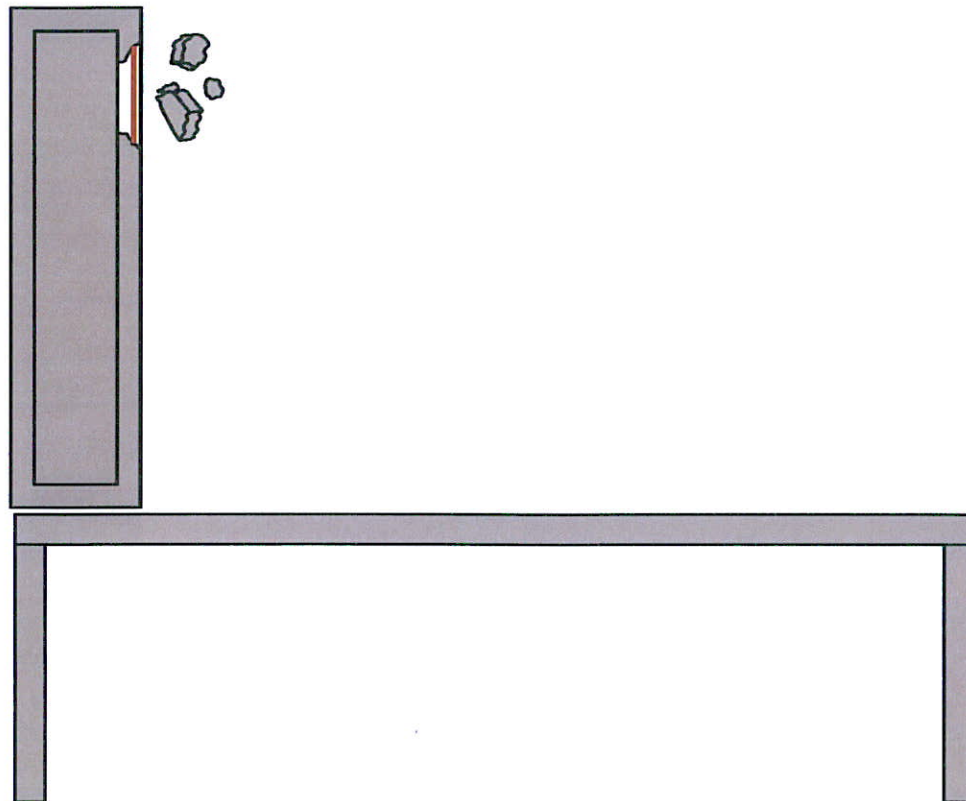
**Plate 5.0-5 View of platform at SDI-18,270, facing east.**

The trough feature is in line with the west wall, and extends north from the north footing wall. The trough is also rectangular in shape, has a concrete floor, and is oriented north to south (on the 343 degrees azimuth). It measures 105 inches long, 23 inches wide, with walls 4.5 inches wide and up to 8.5 inches tall, but level with the top of the footing. Portions of the trough walls are broken, exposing smooth iron rebar. No wood, window glass, or other structural debris was observed near the footing.

A small, sparse trash scatter consisting of fragmented bottle glass and three metal cans with pull-tab tops is located 15 meters north of the foundation. Diagnostic markings were noted on some of the fragmented bottle glass, which indicated that the material was modern in age, and it appeared that the fragments belong to one bottle. The pull-tab tops on the cans indicate that they were manufactured after 1962. An exploration by trowel around the perimeter of the platform was negative for subsurface artifacts or a subsurface deposit. The site was recorded by sketching, photographs, and GPS. The footing/trough is illustrated in Figure 5.0-7, and pictured in Plate 5.0-5. A site map is provided in Figure 5.0-8.



SDI-18,270 was constructed from sand and concrete without the use of rocks, and would have been too weak to serve as a foundation or footing. It was more likely a platform for two 55-gallon drums associated with the airstrip present on the property from at least 1953 to at least 1966. On the 1953 aerial photograph, two paths lead away from the dark, square shadow (probably a Ramada-type roof over the platform), one directly to the airstrip and the other to SDI-18,274 (Figure 3.0-1).



**Figure 5.0–7**  
**Plan View Sketch of the Platform**  
Site SDI-18,270  
TM 5511, Borrego Springs



**Figure 5.0–8**  
**Site Map of Site SDI-18,270**

*(Confidential Map; deleted for Public Review)*

### **5.6 Testing Results at SDI-18,271**

Site SDI-18,271 is a historic can scatter measuring 1x1 meter. This small scatter of approximately four cans is typical of the numerous pockets of mid-twentieth century trash, mostly consisting of individual bottle glass fragments and metal cans. The cans were solderless (the seams have been double folded and stamped by machine, not soldered closed by hand, soldering was a common characteristic for pre-1900 cans). The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 760 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. The site was mapped by GPS and recorded. The diagnostic attributes of the cans indicate that they were manufactured after 1960, so no artifacts were collected; no subsurface deposit was detected.

### **5.7 Testing Results at P-37-028079**

Site P-37-028079 consists of exposed segments of the three-inch pipeline that originates from the water tank and well head located at SDI-18,267. The exposed segments are vertical pipes that extend two feet from the main pipe. One of the segments, Locus A, consists of two vertical pipes with a connector or irrigation fitting. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 760 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. P-37-028079 was recorded as an isolate by PAS. The entire length of the pipe and the two segments recorded by PAS was mapped by GPS. See Figures 5.0–1 and 5.0–2 for the locations of the exposed pipe, and Plate 5.0–6 for a view of Locus A.



**Plate 5.0–6 View of Locus A, vertical pipes at P-37-028079.**



P-37-028079 (Locs A and B) appears to be a portion of the water tank and irrigation system recorded as SDI-18,267 that has been exposed. A small shadow appears on the 1953 aerial photograph that indicates the presence of the water tank or its foundation by at least that time (Figure 3.0-1). The irrigation system that extends from the water tank site illustrates that irrigation was once used on the property. The irrigation system may have been installed for agriculture or cattle grazing or could have been associated with the airstrip present on the property from at least 1953 to 1966 (Section 3.0).

### **5.8 Testing Results at SDI-18,272**

SDI-18,272 is a historic and modern trash dump measuring 105 by 60 meters. At some point in the past the dump area consisted of two separate pits, each measuring roughly 20 meters by 50 meters, and each was approximately four feet deep. However, the two trash pits have been excavated by heavy equipment and removed for remediation of the dump site. What remains are two large, open pits with sloping walls and a very sparse scattering of bottle glass, ceramics, a few metal cans, and a small amount of scrap metal throughout the site area. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 750 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. Views of the north and south remediation pits are provided in Plates 5.0-7 and 5.0-8. The locations of the remediation/excavation pits and subsurface excavations were mapped by GPS, and are illustrated in Figure 5.0-9.

#### *5.8.1 Surface Recovery*

Seven artifacts were collected from the surface at the location of the single test unit. The remaining surface artifacts throughout the site area consisted of small bottle glass fragments, almost none of which had diagnostic attributes, and most of which appeared to be modern soda bottle glass. Less than five rusty metal cans were observed on the surface. The seven artifacts collected comprised of mostly intact bottles and one intact jar.

#### *5.8.2 Subsurface Excavation*

The eight shovel test pits were focused on the edges of the remediation pits, the area between the pits, and the areas north and south of the pits. The shovel test pits measured approximately 30 centimeters in diameter, and ranged in depths between 30 and 60 centimeters. The shovel test pits were intended to explore the boundaries of the site and the remediation pits, as well as determine the depth, integrity, and level of significance of the subsurface deposit. The results of the shovel tests are summarized in Table 5.0-4.

The sidewalls of the remediation pits were fairly sloped but were able to provide an adequate view of a profile of the subsurface deposit. Therefore, a shovel was used to excavate the sidewalls to get a better view of the profile of the remediation pit walls. Eight sidewall



excavations were conducted at each remediation pit, for a total of sixteen sidewall excavations. No samples were collected from the sidewall investigations. An example of a sidewall excavation is provided in Plate 5.0–9.

One test unit was placed at the southeast corner of the north remediation. The purpose of the test unit was to determine the depth, integrity, level of significance, and age of the site, as well as provide a sampling of the subsurface deposit that is representative of the site as a whole. The deposit appeared to begin at approximately 20 centimeters below the surface, and extend unevenly to approximately 50 centimeters below the surface. The soil, which is a fine to medium grain sandy alluvium, does not appear to change in texture, but the deposit is distinctly darker in color (10YR 4/3) than the soil above (10YR 6/3) or below (10 YR 7/3–4) the deposit.

Test Unit 1 revealed that there is an intact cultural deposit layer or lens that appears to be relatively undisturbed. However, no distinct stratigraphy or individual layers of artifacts was observed within the deposit lens itself, so it is difficult to accurately determine whether the trash dump was filled in one episode or in multiple dumping episodes, or if the trash dump had been turned over multiple times in the past by heavy equipment. The test unit also revealed that a small amount of burning had previously occurred at the site. The results of the test unit excavation are summarized in Table 5.0–4. A profile of the north wall of TU 1 is illustrated in Figure 5.0–10 and pictured in Plate 5.0–10.

### *5.8.3 Laboratory Results*

A total of 200 artifacts were catalogued as a result of the testing program at SDI-18,272. In addition, approximately 59.8 grams of ecofacts (butchered bone) were recovered from the site. The artifact assemblage consisted of Domestic Expendable (N=185), Domestic General (N=3), and Domestic Non-expendable (N=10) items. The largest functional category represented in the collection consisted of Domestic Expendable, most of which consisted of bottle and/or jar fragments. The second most common functional category was Domestic Non-expendable, represented mostly by ceramic tableware fragments. Identifiable bottle types included beverage, dairy, and liquor/spirits. The majority of the bottle types, however, are soda bottles. Given the range of artifacts recovered, it appears the trash dump was primarily domestic with a mixture of building materials. This is particularly evidenced by a high percentage of domestic household items. No artifacts were found to suggest any ethnic identity. A description of the artifact categories recovered from the site is presented in Section 4.3. A summary of recovered artifacts by functional category is presented in Table 5.0–4, and the complete artifact catalog is provided in Appendix III.

A total of 190 temporally diagnostic artifacts were catalogued, but fragments of the same item were grouped together and catalogued as one artifact. The age of the artifacts range from the 1900s to the present. Approximately 36 bottles had manufacturing dates from 1905 to 1910, 22 were manufactured from the 1930s to the present, 20 were manufactured from the 1940s to



the present, nine were manufactured between 1930 and 1970, and one was dated circa 1901. The remaining temporally diagnostic bottles or bottle fragments date primarily from the 1950s to the present, although a few dated circa 1980 or newer. A summary of temporally diagnostic artifacts recovered from SDI-18,272 is provided in Table 5.0–5.

#### *5.8.4 Summary*

The field investigation of SDI-18,272 documented a trash dump, the majority of which has been removed at some time in the recent past. Although the subsurface deposit has been mostly removed by heavy equipment, some of the deposit remains intact and possibly undisturbed around the edges of the remediation pits. Therefore, the significance evaluation included subsurface testing to evaluate the extent and integrity of the subsurface deposit, and to determine whether or not the majority of the subsurface deposit has been removed by heavy equipment. Eight shovel test pits and one 1-x-1-meter test unit were excavated, resulting in the recovery of early to mid twentieth century material. The sidewalls of the remediation pits were explored with a shovel. Seven artifacts were collected from the surface in the location of TU 1, prior to the test unit being excavated, and provenienced as “surface” in the artifact catalog.

It appears from the data that the dump site was created sometime during the late 1920s, or the early 1930s, and continued to be used through most of the mid-twentieth century. However, the large number of bottles manufactured around 1905/1910 that were recovered from the site indicates that the dump may have been created earlier, but bottles with early manufacturing dates can stay in use for years, and some dates represent the initial patent date while the style of bottle stayed in use for decades. The trash dump most likely stopped being utilized as a major dumping site around the late 1960s, but local inhabitants probably continued to dump small amounts of trash at the site or in the area up until the 1980s. It appears that the remediation of the dump site has removed almost all of the material, and no additional trash pits or deposits were identified during the testing program. There may be a thin veneer of historic materials that represent the margins of the dump deposits previously removed. Because of ground disturbance, it was impossible to delineate where these marginal, shallow deposits might remain.

Due to the disturbances to the site caused by the remediation of the dump site, no stratified layers could be analyzed to discern if the site was created by a series of dumping episodes, or if the site was used consistently through the years. Also, it was difficult to determine the extent of the disturbances to the site as a result of the remediation process, but it appears that almost the entire trash dump has been removed. Some remaining intact deposits are present along the edges of the remediation pits but only in certain locations, as indicated by the STPs.

**Figure 5.0-9**

**Excavation Location Map, Site SDI-18,272**

*(Confidential Map; deleted for Public Review)*



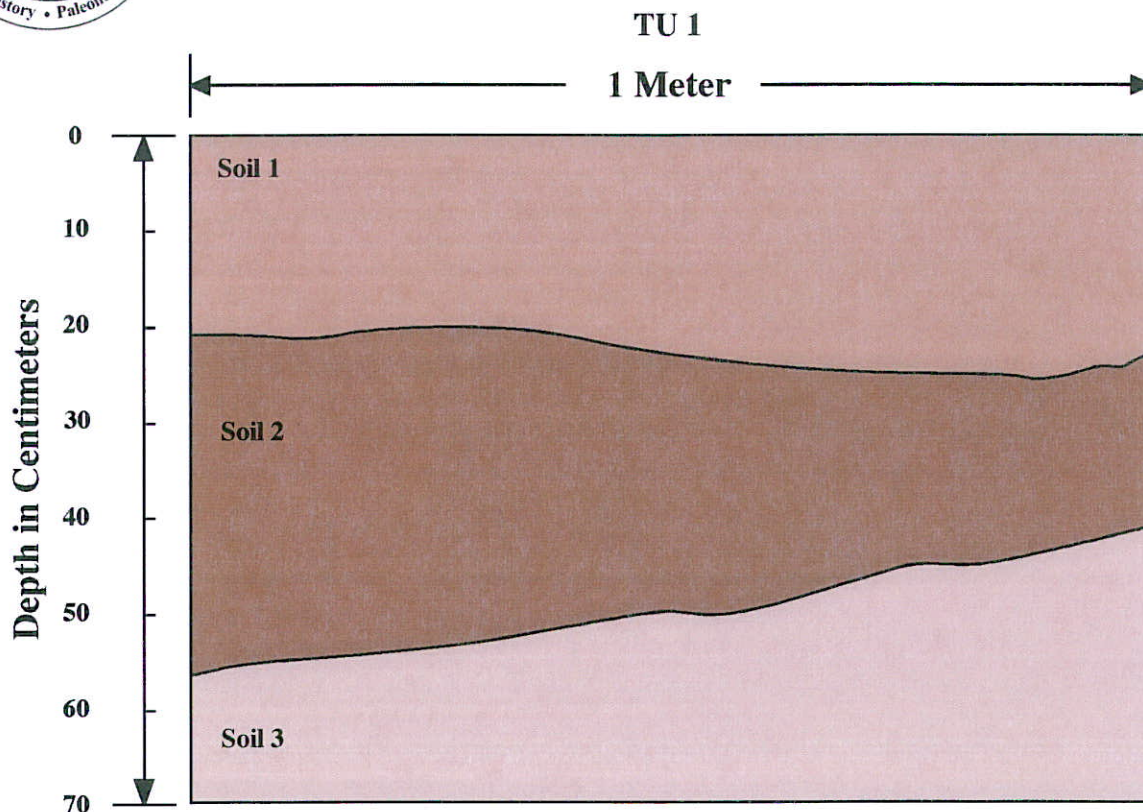


**Plate 5.0-7 View of north remediation pit at Site SDI-18,272, facing west.**




**Plate 5.0-8 View of south remediation pit at Site SDI-18,272, facing west.**





**Soil Types**

- |   |   |
|---|---|
| 1 | Pale brown (10YR 6/3) medium/fine grained sandy alluvium                    |
| 2 | (Deposit) Brown to dark brown (10YR 4/3) medium/fine grained sandy alluvium |
| 3 | Very pale brown (10YR 7/3 to 7/4) medium/fine grained sandy alluvium        |

0   5   10   15   20  
  
 Scale in Centimeters

**Figure 5.0-10**  
**North Wall Profile of Test Unit 1**  
 Site SDI-18,272  
 TM 5511, Borrego Springs





**Plate 5.0–9 Example of a sidewall excavation at Site SDI-18,272.**



**Plate 5.0–10 North wall profile of TU 1 at Site SDI-18,272.**

**Table 5.0–4**  
**Artifact Summary, Site SDI-18,272**

Functional Category/ Artifact Type	STP	TU	Total	Percent
Domestic Expendable				
Bottles, glass	85	57	142	71.1
Bottle/Jar, fragment(s)	7	24	31	15.5
Canned Goods, fragment(s)	–	1	1	0.5
Cap/Lid fragment(s)	–	1	1	0.5
Jar, glass	4	6	10	5.0
<i>Category Total:</i>	<i>96</i>	<i>89</i>	<i>185</i>	<i>92.5</i>
Domestic General				
Electrical Systems, fuse	1	–	1	0.5
Furnishings, mop head	–	2	2	1.0
<i>Category Total:</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>1.5</i>
Domestic Non-Expendable				
Ceramic, tableware	5	3	8	4.0
Flatware, various	–	2	2	1.0
<i>Category Total:</i>	<i>5</i>	<i>5</i>	<i>10</i>	<i>5.0</i>
Ecofacts (in grams)				
Bone, butchered	1.0	58.8	59.8	–
Produce, eggshell	–	<0.1	<0.1	–
<i>Category Total:</i>	<i>1.0</i>	<i>58.8</i>		–
Personal				
Adornment, ring	–	1	1	0.5
Recreation				
Toys, marble	–	1	1	0.5
<b>Total:</b>	<b>102</b>	<b>98</b>	<b>200</b>	<b>100.0</b>
<b>Percent:</b>	<b>51.0</b>	<b>49.0</b>	<b>100.0</b>	



**Table 5.0-5**  
**Temporally Diagnostic Artifacts, Site SDI-18,272**

Artifact Class	Number of Entries	Manufacturing Method	Decoration Color Glaze	Makers Mark	Brand Product	Final Date	Date Source
Toys/Games	1					c. 1901+	Manufacture method
Bottle	29	Machine made (1905/1910+)		Various		1905/1910+	Manufacture method
Bottle/Jar	2	Machine made (1905/1910+)				1905/1910+	Manufacture method
Jar	5	Machine made (1905/1910+)		Embossed: "10" on base		1905/1910+	Manufacture method
Bottle	1	Machine made (1905/1910+)				1905/1910-1920's	Manufacture method and closure type
Bottle	1	Machine made (1905/1910+)				1905/1910-early 1920's	Manufacture method and closure type
Ceramics	1		Clear, colorless glaze	Stamped with black ink on base: "JACKSON CHINA / FALLS CREEK, PA." dates (1917-1976)		1917-1976	Maker's mark
Bottle	5	Machine made (1905/1910+)			Coca-Cola	1923+	Body general
Bottle/Jar	1	Machine made (1905/1910+)		Embossed: "HA" logo on base; Hazel-Atlas Glass Co. (1923-1964)		1923-1964	Maker's mark
Bottle	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "N 7" "N" in square on base; Obear-Nester Glass Co., East St. Louis, IL (1915-1980)	Partial paper label says: "ECONOMICS LABORATORY..." Economics Laboratory, Inc. (1923-1986)	1923-1980	Maker's mark and brand product
Bottle	1	Machine made (1905/1910+)		Embossed: "O-I / 5 / D-10 / 54 58" diamond on base; Owens-Illinois Glass Co., mark dates (1929-1954/1959)		1929-1954/1959	Marker's mark

**Table 5.0-5****Temporally Diagnostic Artifacts, Site SDI-18,272**

<b>Artifact Class</b>	<b>Number of Entries</b>	<b>Manufacturing Method</b>	<b>Decoration Color Glaze</b>	<b>Makers Mark</b>	<b>Brand Product</b>	<b>Final Date</b>	<b>Date Source</b>
Jar	2	Machine made (1905/1910+)				c. 1930+	Closure type
Bottle	10	Machine made (1905/1910+)	Applied color label (1934+)		Various	1934+	Decoration type
Bottle/Jar	3	Machine made (1905/1910+)	Applied color label (1934+)			1934+	Decoration type
Canned Goods	1					1935+	
Bottle	6	Machine made (1905/1910+)			Embossed: "FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS BOTTLE" dates (1935-1960s)	1935-1960's	Brand product
Bottle	3	Machine made (1905/1910+)	Applied color label (1934+)		Label says: "7-Up" and "You Like It It Likes You"; 7-Up slogan dates (1936-1967)	1936-1967	Brand product
Bottle		Machine made (1905/1910+)		Embossed: "PATD 112708 / 1" on base; patent date (Dec. 27, 1938)		Dec. 27, 1938+	Patent date
Bottle	7	Machine made (1905/1910+)			Embossed: "NO DEPOSIT NO RETURN NOT TO BE REFILLED" dates (1939+)	1939+	Brand product
Bottle	11	Machine made (1905/1910+)	Stippling on base (1940+)	Various	Various	1940+	Decoration type
Bottle/Jar	6	Machine made (1905/1910+)	Stippling on base (1940+)			1940+	Decoration type



**Table 5.0-5****Temporally Diagnostic Artifacts, Site SDI-18,272**

Artifact Class	Number of Entries	Manufacturing Method	Decoration Color Glaze	Makers Mark	Brand Product	Final Date	Date Source
Jar	2	Machine made (1905/1910+)	Stippling on base (1940+)	Various	Various	1940+	Decoration type
Bottle	2	Machine made (1905/1910+)	Stippling on base (1940+)	Various	Embossed: "FEDERAL LAW FORBIDES SALE OR RE-USE OF THIS BOTTLE" (1935-1960's)	1940-1960's	Decoration type and federal law
Bottle	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "M32B34 / 83 / D-9 6/ GC" on base; Glass Containers, Fullerton, CA (1933-1983)		1940-1983	Decoration type and maker's mark
Bottle	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "3/ FF / D334 / 69-59" on base; Foster-Forbes Glass Co.; various locations (1942-c.2000)	Embossed: "BEAM / SINCE 1795" on shoulder; "FEDERAL LAW FORBIDES SALE OR RE-USE OF THIS BOTTLE" on shoulder, dates (1935-1960's); "JAMES B. BEAM DISTILLING COMPANY INCORPORATED / 4/5 QUART" on base, James B. Beam Distillery (1894-)	1942-1960's	Maker's mark and brand product
Bottle/Jar	2	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "3 FF 1710" on base; Foster-Forbes Glass Co.; various locations (1942-c.2000)		1942-c.2000	Maker's mark

**Table 5.0-5**  
**Temporally Diagnostic Artifacts, Site SDI-18,272**

Artifact Class	Number of Entries	Manufacturing Method	Decoration Color Glaze	Makers Mark	Brand Product	Final Date	Date Source
Bottle/Jar	1	Machine made (1905/1910+)		Embossed: "... / O-I / 49 / Duraglas / 2580-C" on base; Owens-Illinois Glass Co. mark dates (1929-1954/1959); unknown plant; manufacture date (1949)		1949	Maker's mark
Bottle	2	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "TMC / C / 317..." on base; Thatcher Manufacturing Co., various locations; mark dates (1949-1985)		1949-1985	Maker's mark
Bottle	2	Machine made (1905/1910+)		Embossed: "O-I" on base; Owens-Illinois Glass Co., mark dates (1954/1959+)		1954/1959+	Maker's mark
Bottle/Jar	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "O-I / D-10 / 56-59 / 14" on base; Owens-Illinois Glass Co. (1954/1959+)		1954/1959+	Maker's mark
Bottle	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "...0 / O-I / 5 / 9-..." on base; Owens-Illinois Glass Co. mark dates (1954/1959+); unknown plant; manufacture date (1955+)		1955+	Maker's mark
Bottle	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "2 / O-I / [6 or 8] / 4" on base; mark dates (1954/1959+), from Fairmount, WV (1930+) and a manufacture date of (1956/1958)		1956/1958	Decoration type



**Table 5.0-5**  
**Temporally Diagnostic Artifacts, Site SDI-18,272**

Artifact Class	Number of Entries	Manufacturing Method	Decoration Color Glaze	Makers Mark	Brand Product	Final Date	Date Source
Bottle		Machine made (1905/1910+)		Embossed: "...MG..." logo in box on base; Maywood Glass Co., Compton, CA (c. 1958)		c. 1958	Maker's mark
Bottle	1	Machine made (1905/1910+)	Applied color label (1934+)	Embossed: "23 / O-1 / 8 / 28 / 4546-2" on base; Owens-Illinois Glass Co.; mark dates (1954/1959+) from the Los Angeles plant (1949+) with a manufacture date (1958+)	Label says: "Vernor's / REG. U.S. PAT. OFF. / deliciously different / Note - VERNOR'S / FLAVOR AGED 4 YEARS IN WOOD / CONTENTS 8 FL. OZS. / Bottled under license by NATIONAL DRINKS GARDENIA, CA " Vernors Ginger Ale, logo(1866-late 1950s)	1958/1959	Maker's mark and brand product
Bottle	2	Machine made (1905/1910+)		Embossed: "O-I" on base; Owens-Illinois Glass Co.; mark dates (1958+)		1958+	Maker's mark
Bottle	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "101 / O-1 / 59 / D-28 / 4A" on base; Owens-Illinois Glass Co.; mark dates (1954/1959+), unknown plant and manufacture date (1959)	Embossed: "FEDERAL LAW FORBIDES SALE OR RE-USE OF THIS BOTTLE / ONE QUART" (1935-1960's)	1959	Maker's mark

**Table 5.0-5****Temporally Diagnostic Artifacts, Site SDI-18,272**

<b>Artifact Class</b>	<b>Number of Entries</b>	<b>Manufacturing Method</b>	<b>Decoration Color Glaze</b>	<b>Makers Mark</b>	<b>Brand Product</b>	<b>Final Date</b>	<b>Date Source</b>
Bottle/Jar	1	Machine made (1905/1910+)		Embossed: "23 / O-I / 59 / 1" on base; Owens-Illinois Glass Co., mark dates (1954/1959+); indicates the Los Angeles plant (1949+); manufacture date (1959)		1959	Maker's mark
Bottle	3	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "O-I" on base; Owens-Illinois Glass Co., mark dates (1962+)		1962+	Maker's mark
Bottle/Jar	1	Machine made (1905/1910+)	Stippling on base (1940+)	Embossed: "8 / O-I / 7 / 1" on base; Owens-Illinois Glass Co., mark dates (1954/1959+), from New Orleans, LA plant (1962+), and manufacture date (1967+)		1967+	Maker's mark



### **5.9 Testing Results at SDI-18,273**

Site SDI-18,273 is a small stone hearth and an unrelated sparse trash scatter, together measuring 40 by 25 meters. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 745 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. It appeared that the stone hearth was modern. Approximately 12 rocks have been neatly arranged in a circle with a metal grill in the center. The hearth appeared to have been used recently (within the past year), and the arrangement of rocks along with a lack of vegetation growing in or close to the hearth indicate that it was constructed in recent times. A trowel was used to explore the soil in the center of the hearth, but no charcoal or ash was detected below just a few centimeters. The sparse scatter of mid to late twentieth century trash consisted of soda bottle fragments and three or four rusty metal cans with machined seams and pull-tab tops, indicating that they were manufactured sometime after 1962. There were no concentrations of artifacts, so no subsurface excavations were conducted and no samples were collected from the surface. A trowel was used to explore the subsoil in the vicinity of the trash scatter, but no subsurface artifacts or deposits were detected. While identified by PAS as a historic feature, this site most likely should not be considered historic, as it does not meet the applicable thresholds.

### **5.10 Testing Results at SDI-18,274**

SDI-18,274 is a collapsed wood structure, exposed pipe fittings, and a sparse scattering of trash in the vicinity of the structure remains, altogether measuring approximately 30 by 20 meters. The vegetation within the site area consists of desert sagebrush, creosote scrub, saltbush, and various cacti. The elevation is approximately 740 feet AMSL, and the terrain is level but slightly uneven due to the presence of low sand dunes. The pipe fittings are part of the three-inch pipe that originates from the water tank, so they were recorded as part of SDI-18,267.

The evaluation program consisted of the detailed recording of a historic feature; however, no subsurface excavations were conducted due to the absence of any artifact concentrations. The wood structure appeared to have been collapsed for some time. Initially it appeared that the structure collapsed where it once stood, but the footings are located just to the north and east of the milled timber, which is laid out neatly within a 20-x-20-foot area. The footings consisted of three concrete blocks, and one adobe block. The adobe footing appeared to be in its' original location; however, the concrete block footings have been moved from their original locations, so the dimensions of the structure could not be easily determined. One 4-x-4-inch floor or roof timber was 14 feet long, and the structure appeared to have been square in shape; the structure may have measured roughly 14 square feet. There were a few sections of plaster wall with chicken wire located within the area around the structure, but it was difficult to determine if the plaster pieces came from the structure or somewhere else. The structure remains are illustrated in Figure 5.0-11 and pictured in Plate 5.0-11.



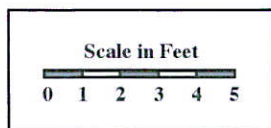
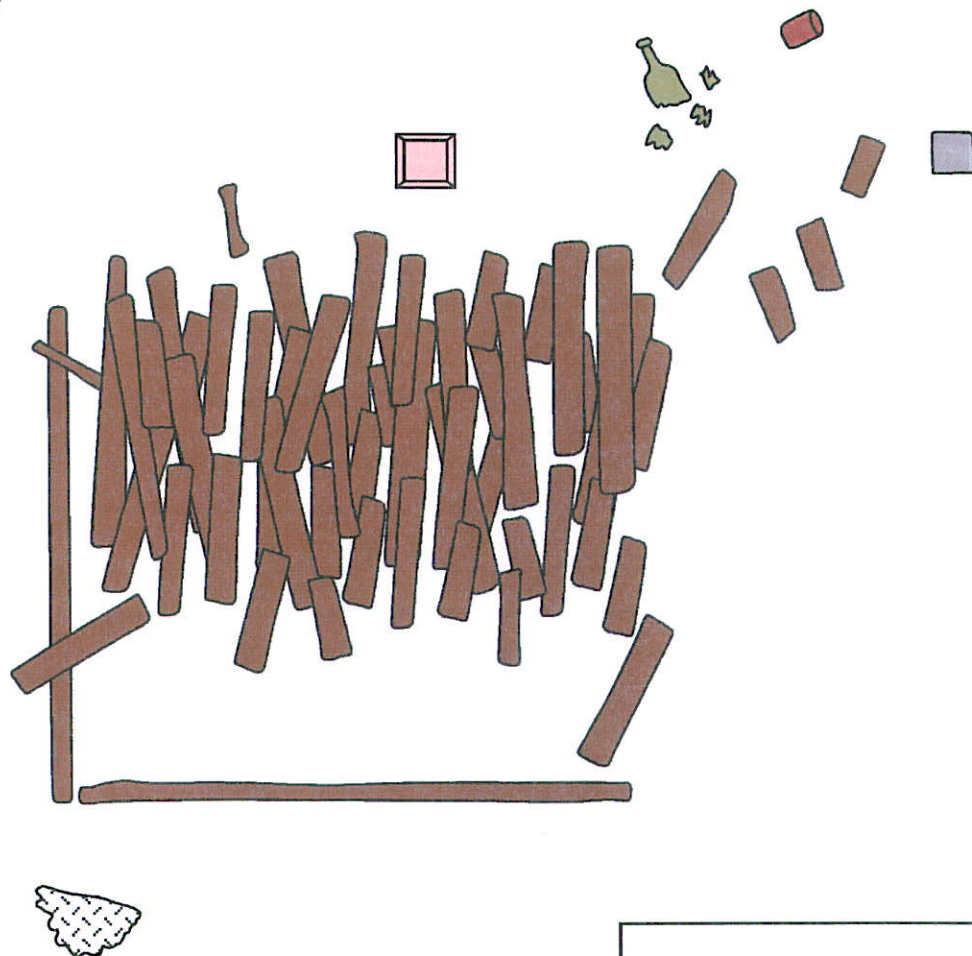
The sparse trash within the vicinity of the structure consisted of modern brown beer bottle glass, one wine bottle base (machine made), and less than ten metal cans with pull tab tops or machine-sealed seams. Diagnostic analysis of the artifacts determined that they were modern in age (post 1970).

Saltcedar trees (*Tamarix ramosissima*) line SDI-18,274 on the south side and would have acted as a windbreak for the building. The presence of a well head nearby (identified during the PAS survey in 2007) just outside project boundaries as well as the presence of metal fencing, toilet bowl fragments, post-and-pier footings, and stucco on chicken wire, suggest that the collapsed building was a small residence, likely temporary. Although the building was not illustrated on the 1959 or 1974 topographic maps, the line of trees and a small shadow are present on the 1953 aerial photograph, indicating that a building stood on that location by at least that time (Figure 3.0-1). The concrete footings were composed of sand mixed with concrete without rocks just as the concrete noted in SDI-18,270, suggesting that the two sites were constructed by the same person at the same time. A path leads directly from SDI-18,274 to SDI-18,270, which in turn is associated with the airstrip on the property from at least 1953 to at least 1966 (Section 3.0).



**Plate 5.0-11 View of structure remains at SDI-18,274, facing west.**





**Figure 5.0-11**  
**Plan View Sketch of Structure Remains**  
 Site SDI-18,274  
 TM 5511, Borrego Springs

## **6.0 DISCUSSION/MANAGEMENT CONSIDERATIONS**

The Phase II archaeological assessment of TM 5511 consisted of a testing and evaluation program for ten cultural resource sites. The methods used during this investigation were in accordance with CEQA, Section 15064.5 and the County of San Diego archaeological guidelines. Two resources were prehistoric sites, seven were historic sites consisting of trash or structure remains, and one site contained both prehistoric and historic components. The results of the significance evaluation and a discussion of the potential impacts are presented in the following sections.

### **6.1 CEQA and County of San Diego RPO Guidelines**

The ten cultural resources recorded within the project were evaluated according to the criteria presented in Section 15064.5 of the California Environmental Quality Act of 1970 (CEQA), as amended, and the County of San Diego guidelines (Resource Protection Ordinance). The resources SDI-18,266 through SDI-18,274 are considered to have limited significance as the sites have yielded information important to prehistory. The resources are not RPO significant.

The evaluation criteria utilized for the project from Section 15064.5 is summarized below:

#### **Determining the Significance of Impacts to Archaeological and Historical Resources**

As part of the evaluation of ten resources within TM 5511, the term “historical resources” as described in CEQA shall include the following:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.).
- (2) A resource included in the local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead



agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:

- (A) Is associated with the events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
  - (B) Is associated with the lives of persons important in our past;
  - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(i) or 5024.1.

In addition, CEQA also states that impacts to a local community, ethnic, or social group must also be considered. If a resource is determined to be not important under these criteria, it is assumed that the resource cannot be significantly impacted and, therefore, mitigating measures are not warranted. However, any resources found to be important according to these criteria must be assessed for project-related actions that could directly or indirectly impact such resources. Impacts that adversely affect important resources are considered to be significant impacts for which mitigating measures are warranted.

Resources within the project were also evaluated against the listing information included in the County of San Diego’s Resource Protection Ordinance (RPO). Sites that are considered to be regionally important may be eligible for RPO status. The criteria for RPO-eligible sites is as follows:

Significant prehistoric or historic sites: Location of past intense human occupation where buried deposits can provide information regarding important scientific research questions about prehistoric or historic activities that have scientific, religious, other ethnic value of local, regional, state, or federal importance. Such locations shall include, but not be limited to: any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places or the State Landmark Register; or included or eligible for

inclusion, but not previously rejected, for the San Diego County Historical Site Board List; any area of past human occupation located on public or private land where important prehistoric or historic activities and/or events occurred; and any location of past or current sacred religious or ceremonial observances protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures, and natural rocks or places which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

### **6.2 Significance Evaluation of SDI-18,266**

Site SDI-18,266 is a prehistoric ceramic scatter with numerous SBW potsherds, measuring approximately 20 by 15 meters. It appears that SDI-18,266 was a late prehistoric resource collection site. Tool maintenance may have been a site activity based upon the reported presence of flakes by PAS; however, no flakes were relocated during the current study. The site may have been a seasonal resource processing camp where food items would have been processed and stored in ceramic vessels. The additional ceramics found throughout the subject parcel indicates that the area was frequently visited or occupied by prehistoric peoples, and the SBW pottery is a firm temporal marker for the late prehistoric period.

Results of the shovel test pits determined that there is no subsurface component to the site. Due to the absence of a subsurface deposit, the research potential for SDI-18,266 has been exhausted through recording and collecting the surface artifacts. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

### **6.3 Significance Evaluation of SDI-18,267**

Site SDI-18,267 is a historic water tank foundation consisting of a lattice-like wood frame, a concrete and metal well head, and a three-inch metal pipe that extends north for a approximately 1,000 meters. A few metal cans, glass bottle fragments, and bricks were in the immediate vicinity of the tank, but no deposits or dense concentrations of historic material were observed.

Results of the subsurface exploration determined that there is no subsurface component to the site. Due to the absence of a subsurface deposit, the research potential for SDI-18,267 has been exhausted through recording the structure remains. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

### **6.4 Significance Evaluation of SDI-18,268**

Site SDI-18,268 is a prehistoric ceramic scatter of eight SBW potsherds in addition to one quartz flake. The sherds appear to be from no more than one or two vessels, with a small amount of bottle glass in the vicinity, over an area measuring one by four meters.



Results of the subsurface exploration determined that there is no subsurface component to the site. Due to the absence of a subsurface deposit, the research potential for SDI-18,268 has been exhausted through recording and collecting the prehistoric surface artifacts. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

### **6.5 Significance Evaluation of SDI-18,269**

Site SDI-18,269 is a large and sparse historic artifact scatter with a prehistoric component consisting of five prehistoric SBW potsherds, including one rimsherd. The prehistoric artifacts were concentrated near the west edge of the site area. The site contains trash from the early to late twentieth century, and is scattered over an area measuring 65 by 30 meters.

The origin of the modern/historic trash material was difficult to determine from the artifact scatter. However, after examining the 1954 USGS Quadrangle map, it appears that a structure was located just west of the site and property, within the Anza Borrego State Park lands. No evidence of the structure was observed during the significance evaluation, but the historic/modern material appeared to be primarily domestic with a few building materials such as window glass and brick fragments. The trash scatter was modern in age, and upon examination of a random sampling of diagnostic artifacts, it appeared that the majority of the trash scatter dated to the mid to late twentieth century.

Results of the subsurface exploration determined that there is no prehistoric or historic subsurface component to the site. Due to the absence of a subsurface deposit, the research potential for SDI-18,269 has been exhausted through recording and collecting the prehistoric surface artifacts with a sampling of the historic material. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

### **6.6 Significance Evaluation of SDI-18,270**

Site SDI-18,270 is a concrete platform with a few historic artifacts scattered in the vicinity. The concrete platform forms a rectangle that is oriented east to west and open to the south. A concrete trough feature extends north from the northwest corner of the platform. The entire concrete structure measures 15 feet east to west, and 13 feet north to south. A small, sparse trash scatter, measuring about one by two meters, is located approximately 15 meters north of the foundation, but this trash scatter was mostly modern in age.

Results of the trowel exploration determined that there is no subsurface component to the site. Due to the absence of a subsurface deposit, the research potential for SDI-18,270 has been exhausted through recording the structure remains. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.



### **6.7 Significance Evaluation of SDI-18,271**

Site SDI-18,271 is a historic can scatter measuring 1x1 meter. This small scatter of cans is typical of the numerous pockets of mid century trash, mostly consisting of bottle glass and metal cans, located in the central portion of the project within close vicinity of SDI-18,269, a large sparse trash scatter, and SDI-18,272, a large trash dump site

Results of the trowel exploration determined that there is no subsurface component to the site. Due to the absence of a subsurface deposit, the research potential for SDI-18,271 has been exhausted through recording. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

### **6.8 Significance Evaluation of P-37-028079**

Site P-37-028079 consists of exposed segments of the three-inch pipeline that originates from the water tank and well head located at SDI-18,267. P-37-028079 was recorded as an isolate by PAS. The entire length of the pipe, as well as the two segments recorded by PAS, was mapped by a handheld GPS unit. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

### **6.9 Significance Evaluation of SDI-18,272**

SDI-18,272 is a historic and modern trash dump measuring 105 by 60 meters. At some point in the past the dump area consisted of two separate pits, each measuring roughly 20 meters by 50 meters and approximately four feet deep. However, the two trash pits have been excavated by heavy equipment and removed for county remediation of hazardous waste. What remains are two large, open pits with sloping walls and a scattering of bottle glass, ceramics, a few metal cans, and a small amount of scrap metal throughout the site area.

The age of the artifacts collected and catalogued range from the 1900s to the present. Approximately 36 bottles had manufacturing dates from 1905 to 1910, 22 were manufactured from the 1930s to the present, 20 were manufactured from the 1940s to the present, nine were manufactured between 1930 and 1970, and one was dated circa 1901. The remaining temporally diagnostic bottles or bottle fragments date primarily from the 1950s to the present, although a few dated circa 1980 or newer. It appears from this data that the trash dump(s) was created sometime during the late 1920s, or the early 1930s, and continued to be used through most of the mid twentieth century. However, the large number of bottles manufactured around 1905/1910 that were recovered from the site indicates that the dump may have been created earlier, but bottles with early manufacturing dates can stay in use for years, and some dates represent the initial patent date while the style of bottle stays in use for decades. The trash dump most likely stopped being utilized as a major dumping site around the late 1960s, but local inhabitants probably continued to dump small amounts of trash at the site or in the area up until the 1980s. The trash dump may have been created by the airfield operators, or by the occupants of the



former motel/resort that was located just north of the subject property, and utilized by either or both groups for at least two decades.

Results of the subsurface testing determined that marginal, peripheral subsurface deposits remain along the edges of the remediation pits. The majority (estimated at 95%) of the deposit has been removed, and the removal process appears to have disturbed the remaining deposit. Therefore, due to the severity of disturbances to the subsurface deposit and the lack of significant historic material as a result of the remediation process, the research potential for SDI-18,272 has been exhausted through subsurface testing and the recovery of a representative sample of the subsurface deposit. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

#### **6.10 Significance Evaluation of SDI-18,273**

Site SDI-18,273 is a small stone hearth and an unrelated trash scatter, together measuring 40 by 25 meters. It appeared that the stone hearth was most likely modern in origin, because it appeared to have been constructed and used recently. The sparse scatter of mid to late twentieth century trash consisted of one or two artifacts for every ten meters; no concentrations were identified.

Due to the absence of a subsurface deposit, the research potential for SDI-18,273 has been exhausted through recordation. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

#### **6.11 Significance Evaluation of SDI-18,274**

SDI-18,274 is a collapsed wood structure and exposed pipe fittings with a sparse scattering of trash in the vicinity, altogether measuring approximately 30 by 20 meters. The pipe fittings are part of the three-inch pipe that originates from the water tank, so they were recorded as part of SDI-18,267. The sparse trash within the vicinity of the structure consisted of modern bottle glass and metal cans from the mid to late twentieth century. No subsurface deposit was detected, and no artifacts were collected. The wood structure appears to have been collapsed for some time.

Due to the absence of a subsurface deposit, the research potential for SDI-18,274 has been exhausted through recordation of the structure remains. The resource has limited significance according to San Diego County guidelines, but is not RPO significant.

#### **6.12 Assessment of Effects**

The proposed project involves the subdivision of the current property into 17 single-family residential lots and one commercial lot. According to the development plan, the area of potential development will include the entire 50-acre project area. The proposed project will result in the disturbance or removal of all ten resources identified on the project. All of the

cultural resources will be affected by the project. Because the resources are considered to have limited significance, measures will be required to mitigate impacts to a level below significant.

### **6.13 Mitigation Recommendations**

The proposed project will impact ten recorded cultural resources. The resources have limited significance according to San Diego County guidelines but are not RPO significant. Impacts to the resources will be mitigated through curation of the collected artifacts and updating the site records to include the results of the significance evaluation. Due to the frequency of use of the project area by both prehistoric and historic inhabitants, monitoring by a qualified archaeologist is recommended for all ground altering activities within TM 5511.

### **6.14 County Requirements for Project Approval**

Prior to approval of grading permits or improvement plans, or prior to the Recordation of the Final Map, whichever comes first, the applicant shall:

Provide evidence to the satisfaction of the Director of Planning and Land Use that the cultural resource evaluation of TM 5511; entitled, "A Phase II Archaeological Assessment of TM 5511" prepared by Brian F. Smith and Associates dated February 26, 2007 including the Confidential Appendix has been submitted to the South Coastal Information Center. Evidence shall be in the form of a letter from the South Coastal Information Center identifying that the cultural resource evaluation has been received.

#### Grading Monitoring

As part of the Approval of Grading Plans, the subdivider shall:

- A. Implement a grading monitoring plan to mitigate potential impacts to undiscovered buried archaeological resources on Tentative Map 5511 to the satisfaction of the Planning Director. This program shall include, but shall not be limited to, the following actions:
  - a. Provide evidence to the Department of Planning and Land Use that a County certified archaeologist has been contracted to implement a grading monitoring program to the satisfaction of the Director of Planning and Land Use (DPLU). A letter from the Project Archaeologist shall be submitted to the Director of Planning and Land Use. The letter shall include the following guidelines:



- a. The consulting archaeologist shall contract with a Native American monitor to be involved with the grading monitoring program.
- b. The County certified archaeologist/historian and Native American Monitor shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program.
- c. The consulting archaeologist shall monitor all areas identified for development.
- d. An adequate number of monitors (archaeological/ historical/Native American) shall be present to ensure that all earth-moving activities are observed and shall be on-site during all grading activities.
- e. During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be on site full-time. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Principal Investigator.
- f. During the cutting of previously disturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite as determined by the Principal Investigator of the excavations. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Principal Investigator in consultation with the Native American monitor.
- g. Isolates and clearly non-significant deposits will be minimally documented in the field and the monitored grading can proceed.
- h. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance

operations in the area of discovery to allow evaluation of potentially significant cultural resources. The archaeologist shall contact the County Archaeologist at the time of discovery. The archaeologist, in consultation with the County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the County Archaeologist, then carried out using professional archaeological methods.

- i. If any human bones are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains.
- j. Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The Principal Investigator shall determine the amount of material to be recovered for an adequate artifact sample for analysis.
- k. In the event that previously unidentified cultural resources are discovered, all cultural material collected during the grading monitoring program shall be processed and curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.



- l. In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Director of Planning and Land Use prior to the issuance of any building permits. The report will include Department of Parks and Recreation Primary and Archaeological Site forms.
    - m. In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of Planning and Land Use by the consulting archaeologist that the grading monitoring activities have been completed.
  - B. Provide Evidence to the Director of Planning and Land Use that the following notes have been placed on the Grading Plan:
    1. The County certified archaeologist/historian and Native American monitor shall attend the pre-construction meeting with the contractors to explain and coordinate the requirements of the monitoring program.
    2. During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be on site full-time to perform full-time monitoring as determined by the Principal Investigator of the excavations. The frequency inspections will depend on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features.
    3. During the cutting of previously disturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite as determined by the Principal Investigator of the excavations. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Principal Investigator in consultation with the Native American monitor.
    4. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s) shall have the authority to divert or temporarily halt ground disturbance operation in the area of discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the County Archaeologist at the time of discovery. The Principal

Investigator, in consultation with the County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the County Archaeologist, then carried out using professional archaeological methods.

5. The consulting archaeologist shall monitor all areas identified for development.
6. If any human bones are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains.
7. Prior to rough grading inspection sign-off, provide evidence that the field grading monitoring activities have been completed to the satisfaction of the Director of Planning and Land Use. Evidence shall be in the form of a letter from the Project Archaeologist.
8. Prior to Final Grading Release, submit to the satisfaction of the Director of Planning and Land Use, a final report that documents the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program. The report shall also include the following:
  - a. Department of Parks and Recreation Primary and Archaeological Site forms.
  - b. Evidence that all cultural materials collected during the grading monitoring program has been curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility



identifying that archaeological materials have been received and that all fees have been paid.

In the event that no cultural resources area discovered, a brief letter to that effect shall be sent to the Director of Planning and Land Use by the consulting archaeologist that the grading monitoring activities have been completed.

#### Curation

Prior to approval of grading permits or improvement plans, or prior to the Recordation of the Final Map, whichever comes first, the applicant shall:

Provide evidence to the satisfaction of the Director of Planning and Land Use that all archaeological materials recovered during the Brian F. Smith (2007) archaeological investigations of the property, including all significance testing as well as grading monitoring activities, have been curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologist/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.

**Table 6.0-1**

#### **Evaluation Summary for Cultural Resources**

<b>Site</b>	<b>Evaluation</b>	<b>Mitigation Monitoring Required</b>
SDI-18266	Limited Significance	Yes
SDI-18267	Limited Significance	Yes
SDI-18268	Limited Significance	Yes
SDI-18269	Limited Significance	Yes
SDI-18270	Limited Significance	Yes
SDI-18271	Limited Significance	Yes
SDI-18272	Limited Significance	Yes
SDI-18273	Limited Significance	Yes
SDI-18274	Limited Significance	Yes
P-37-028079	Limited Significance	No

## **7.0 PERSONNEL**

The archaeological survey was conducted by Project Archaeologist Richard Greene under the direction of Brian F. Smith, Principal Investigator, with assistance from field archaeologists Ryan Robinson, Brad Comeau, Karl Lorenzen, and Seth Rosenberg. The site testing was conducted by Project Archaeologist Richard Greene under the direction of Brian F. Smith, Principle Investigator, with assistance from field archaeologists Matt Smith, Andrew Hoge, and Damien Tietjen. The records search review and drafting of this report was conducted by Richard Greene, under the direction of Brian F. Smith, Principal Investigator. A supplementary field visit and archival research were conducted in December 2007 by Senior Archaeologist and Historian Larry J. Pierson and Historian Melanie D. Lytle. Dylan Amerine conducted the technical editing, with assistance from Brian F. Smith. Erika Manabat and Kristen Horgos produced the report, and Clint Callahan and Damien Tietjen produced the graphics.



## 8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief, and have been compiled in accordance with the CEQA and San Diego County.



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Brian F. Smith  
Principal Investigator

February 26, 2007, Revised July 11, 2007,  
Revised January 2, 2008

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Date

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